#### INSPECTION FACT SHEET

<u>COMPANY NAME</u>: Bombardier Aerospace

dba West Virginia Air Center

<u>I.D.#</u>: WVD988776852

MAILING ADDRESS: 2400 Aviation Way

Bridgeport, WV 26330

TYPE OF FACILITY: LQG

LOCATION: Benedum Airport

**COUNTY**: Harrison

**COMPANY CONTACT**: Bill Pulling

HANDLING CODES: S01

PHONE: (304)842-6300

**PURPOSE**: To conduct a Compliance Evaluation Inspection

APPLICABLE REGULATIONS: West Virginia Hazardous Waste Management Act, Chapter 22-

18: West Virginia Administrative Regulations for Chapter 22-18;

and/or 40 CFR Parts 260 thru 279

**LIST OF CHEMICALS**:

(For Small Quantity Generators, list amount of waste, how it is handled, where it goes)

\_\_\_\_ DETERMINATION PENDING

\_\_\_ NOT APPLICABLE

X VIOLATIONS

\_\_\_\_ NO VIOLATIONS

DATE INSPECTED: Janu

(1)

January 27-28, 2000

INSPECTOR:

Joyce Moore, West Virginia Division of Environmental Protection, Office of Waste Management, Fairmont District Office

(2) Stan Moskal, West Virginia Division of Environmental Protection, Office of Waste Management, Martinsburg Field Office

PREPARED BY:

Joyce Moore, Office of Waste Management

#### **Inspection Report**

Re:

West Virginia Air Center, Bridgeport, WV (WVD988776852)

Inspectors:

Joyce Moore, West Virginia Division of Environmental Protection

Office of Waste Management, Fairmont District Office

Stan Moskal, West Virginia Division of Environmental Protection

Office of Waste Management, Martinsburg Field Office

Date:

January 27-28, 2000

Prepared By:

Joyce Moore, West Virginia Division of Environmental Protection

On January 27, 2000, Environmental Inspector, Joyce Moore conducted a Compliance Evaluation Inspection of West Virginia Air Center in Bridgeport, West Virginia. Upon arrival at 11:08 a.m. the above inspector was met by Frank Crislip, Quality Assurance Engineer.

Upon presentation of the appropriate credentials, the above inspector advised the facility representative of her authority as a representative of the Director of the Division of Environmental Protection pursuant to Chapter 22 of the Code of West Virginia and as specified in Section 3007(a) of the Resource Conservation and Recovery Act. He acknowledged this authority. The facility representative was further advised that this inspection would emphasize the company's compliance with the Hazardous Waste Management Act (Chapter 22, Article 18) and the regulations promulgated thereunder.

This facility performs a variety of maintenance services for aircraft. Most of the hazardous wastes generated at this facility are a result of the stripping and painting services they provide. The hazardous wastes generated by this facility include, waste paint solids debris, waste paint liquid, alodine and etch rags, stripping liquids, stripping tank solids, aerosol cans and contaminated absorbent. Additional regulated wastes include waste oil, filters, batteries, and florescence bulbs.

The first area inspected was Bay 3, primarily used for the stripping and painting operations. The aircraft are washed and all fuel removed before they are placed into this bay. Once an aircraft is stripped with a formic acid stripper, it is then etched with phosphoric acid, coated with alodine, then primed and painted. Upon inspection the hazardous waste storage area, in Bay 3, contained approximately (19) nineteen drums of hazardous waste. Four drums of hazardous waste were not closed, in violation of 40 CFR 265.173(a) as referenced by 262.34. (See Photos # 3-5). Two drums of hazardous waste had no accumulation start dates and also no hazardous waste labels theses are violations of 40 CFR 262.34(a)(2) and 40 CFR 262.34(a)(3) respectively.

Three drums of hazardous waste had been stored for greater than ninety days in violation of 40 CFR 262.34(b). (See Photos # 6 & 7). One drum of hazardous waste had no accumulation start date this is in violation of 40 CFR 262.34(a)(2). Aisle space in the drum storage area was nonexistent and therefore inadequate to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment in the event of an emergency, this is in violation of 40 CFR 265.35 as referenced by 262.34(a)(4). (See Photos 1-3). The lack of aisle space was also documented on August 24, 1999, during an inspection conducted by the Office of Air Quality. (See Attachment A).

When an aircraft is brought in for service or painting the majority of the fuel on board is pumped off into a fuel truck, then the remaining fuel is drained into a fuel sump cart in the Maintenance Bay, Bay # 4. Ten percent of the fuel pumped off into the fuel truck is returned to the same aircraft it was removed from. The remaining fuel in the fuel truck is shipped off-site as an off-spec fuel by Petroleum Recyclers and Environmental Services Inc. (See Attachment B). According to the facility representative the FFA Regulations limit the amount fuel that can be returned to the aircraft. The Jet A Fuel MSDS lists a flash point range of 100-150 F, the RCRA Classification is listed as Ignitable (D001), the Hazardous Components as Benzene, Toluene, Xylene, and Trimethylbenzene. (See Attachment C).

The fuel sump cart was not labeled as off-spec fuel, used oil, hazardous waste or other words to identify the contents, labeling of the fuel sump cart was discussed with the facility representatives at the time of the inspection. Following further review of applicable regulations and this agency's guidance documents, the off-spec Jet A Fuel is not a solid waste and therefore is not a hazardous waste. The unmarked fuel sump cart is not in violation of RCRA, however, the labeling and shipping rules and regulations under OSHA and DOT are applicable to this off-spec commercial chemical product.

Jet A Fuel that is not returned to the aircraft or managed as an off-spec fuel in the fuel truck parked outside, is placed into satellite accumulation drums located inside Bay 4 or the hazardous material storage room. The facility commingles this jet fuel with their waste oil. The waste oil/jet fuel mix is manifested off-site as a hazardous waste to Chemical Conservation of Georgia, Inc. in Valdosta, Georgia. (See Attachment D)

The satellite accumulation area in Bay 4 was found to contain six drums accumulating different hazardous waste streams. (See Photo # 9). Five of the six drums were not in compliance with the applicable regulations. Five drums were not closed this is another violation of 40 CFR 265.173(a) as referenced by 262.34. One of these five open containers of hazardous waste was not labeled nor dated, this is in violation of 40 CFR 262.34(c)(1)(ii) and 40 CFR 262.34(a)(2) respectively.

Bay 4, the maintenance bay, was also the location where hazardous wastes were found in two of the "Trash Only" barrels. (See Photos 11, 14 & 15).

The first instance of the improper waste disposal was contaminated absorbent, specifically pig matting discarded into the trash only barrel. According to the facility representative this waste stream is accumulated in a drum in the satellite accumulation area and managed as a hazardous waste. Mr. Crislip's statement was consistent with this inspector's observations, photo # 9 of an overflowing open container of contaminated pig matting, and the Waste Stream Summary provided to this inspector. (See Photo # 9 and Attachment E).

The second instance of the improper waste disposal was solvent contaminated rags discarded into the "Trash Only" barrel. (See Photos 14 & 15). According to the workers in the maintenance bay, a propeller was wiped down with lacquer thinner. The container this solvent was dispensed from was located in the paint shop and an MSDS for that solvent was obtained. (See Attachment F). The container was labeled as Jet Glo-Acryglo, Med Temp Thinner. The solvent on the rags disposed of in the trash contained, before use, ten percent or more of the following: toluene, ethyl acetate, and cyclohexanone, according to information on the MSDS, these hazardous ingredients have corresponding hazardous waste codes F005, F003 and F003 respectively.

Disposal of hazardous waste as identified or listed in 40 CFR part 261 without the required permit is in violation of 40 CFR 270.1(c). The seriousness of this violation was discussed with the facility representatives, William E. Pulling, Troy T. Jonas, and Frank C. Crislip, at the conclusion of this inspection. During this discussion they were advised that the Hazardous Waste Management Act, (Chapter 22, Article 18, Section 16) of the Code of West Virginia provides criminal penalties for transportation, treatment, storage, and disposal of hazardous waste without a permit.

The paint shop was inspected and found to contain two fifty-five gallon drums accumulating hazardous waste, one for liquids and the second one for solids. (See Photo #8). The drum on the right in photo #8 was not labeled with the words hazardous waste or other words to identify the contents, again this is in violation of 40 CFR 262.34(a)(3).

The chemical storage room was inspected and found to contain one drum, labeled as hazardous waste, accumulating used oil, hydraulic fluid, and Jet A fuel. The facility representative, Frank Crislip, was informed that the regulations require that used oil managed under 40 CFR part 279 be marked with the words "Used Oil". Mr. Crislip explained that the used oil in this area was managed as a hazardous waste, because West Virginia Petroleum Recyclers either did not want the mixed waste or did not want to come inside the facility to get the waste.

The area outside the chemical storage room had a number of containers accumulating on the floor. (See Photo # 10). Among these was a small salvage drum that upon opening was found to contain a one gallon container of solvent that was leaking. The fact that the salvage drum was not labeled or marked with other words to identify the contents, is another violation of 40 CFR 262.34(a)(3). There was also a one gallon paint can, containing spent solvent, the can was open and not labeled, again these are violations of 265.173(a) as referenced by 262.34; and 40 CFR 262.34(a)(3). The facility had not made hazardous waste determinations on the containers of out dated or off-spec products accumulating in this area, in violation of 40 CFR 262.11. The leaking container in the salvage drum was taken to the satellite accumulation area to be transferred into the satellite accumulation drum.

The outside storage area was inspected. This area is used for storing equipment, empty containers, etc. and is typically not a hazardous waste storage area. There were no concerns noted in this area.

The floor drains in Bay 3, the stripping bay, flow into a 300 gallon stainless steel tank installed in a concrete vault in the ground, outside of Bay 3. The tank and containment system were inspected following the removal of the steel plate over the system. (See Photos 12 & 13). Accumulated in this sump tank are stripping wastes that contain cadmium, chromium, formic acid, lead, and water, according to the waste profile and waste analysis obtained from the facility. (See Attachments G & H). The sump tank is equipped with an automatic pump that pumps the waste to a larger above ground storage tank inside Bay 3. The sump tank is labeled "Danger Hazardous Materials" however it was not labeled as hazardous waste or with other words that properly identified the contents, again this is in violation of 262.34(a)(3).

The secondary containment for the sump tank is equipped with a high level alarm, once the tank overflows and the contents in secondary containment reach a high enough level the high level alarm would activate. The sump tank itself, however is not equipped with overfill prevention controls, this is in violation of 40 CFR 265.194(b) as referenced by 262.34(a)(1)(ii). The purpose of the overflow prevention controls on the tank system is to prevent tank overflows, having the alarm float activated by liquids in the secondary containment is not a preventive overflow measure.

Upon inspection of the secondary containment accumulated liquids were observed. The quantity of liquids accumulated were not sufficient to activate the high level alarm. Visual inspection alone was insufficient to determine if the liquids were a result of overflow from the sump tank and/or from rainwater accumulating in the secondary containment area. There were no records at the facility to indicate a waste determination had ever been performed on the liquids in the containment area. Liquids were also noted in this secondary containment on August 24, 1999, during an inspection conducted by the Office of Air Quality. (See Attachment A.)

The facility representative explained that the liquids in the secondary containment were probably just rainwater. Either way it would be pumped out once the float activated the high level alarm. Rainwater and/or tank overflow would be managed as stripper waste. This inspector expressed concern that no waste determination had been made on the contents in the secondary containment especially given how quickly chromium can move though concrete. This inspector informed the facility representative the intent to sample the contents in the secondary containment area upon completion of the inspection.

The facility representative advised that the concrete had been sealed. Upon request he attempted to locate specifications on the sealer that had been used. The specific name of the sealer used and the specifications for the sealer could not be located at the time of this inspection.

Spilled or leaked waste and accumulated precipitation is not removed from the secondary containment system within 24 hours, or in as timely manner as possible to prevent harm to human health or the environment, if the removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours, this is in violation of 40 CFR 265.193(c)(4). Removal of the accumulated precipitation can be accomplished within 24 hours if the unit is diligently operated, however upgrading the design to prevent the accumulation of precipitation should be given consideration.

Other concerns noted are the design of this secondary containment vault system, if it is adequately designed to prevent run-on or infiltration of precipitation, and sloped or otherwise designed to drain and remove liquids resulting from leaks, spills or precipitation, did construction include chemical-resistant water stops in place at all joints, and was the sealer used adequate to provide an impermeable interior coating that is compatible with the stored waste and that will prevent migration of waste into the concrete.

Bays 1 and 2 were also inspected. Normally these bays are used strictly for maintenance and no hazardous waste are generated. However, occasionally hazardous materials are used in small quantities. For example in Bay 1, toluene and paint may be used to touch up the paint on screws or drill holes, and in Bay 2, small amounts of alodine may be used to etch small parts. There were no violations noted in Bays 1 or 2.

A copy of the contingency plan was reviewed with the facility representative. The plan did not list names and phone numbers (office and home) of all persons qualified to act as emergency coordinator. Two of the phone numbers listed were not kept current. There were no addresses listed for any of these persons. The Primary Emergency Coordinator was not named in the plan, nor were alternates listed in the order in which they will assume responsibility, these items are in violation of 40 CFR 265.52(d) as referenced by 262.34(a)(4). (See Attachment I).

Several of the documents requested were provided at the time of this inspection, other documents were not readily available. Mr. Crislip, Quality Assurance Engineer, was filling in for William Pulling, Manager, Environmental, Health & Safety, who was off due to illness. Although Mr. Crislip was familiar with the requirements and operations at the facility, locating the paperwork maintained by Mr. Pulling was difficult. It was decided that the inspection would be continued the following day, this would provide the facility more time to locate documents to demonstrate compliance and provide this inspector an opportunity to collect the sample from the secondary containment area.

On January 28, 2000, the above inspector returned to the facility with Environmental Inspector Supervisor, Stan Moskal. Upon our arrival we were met by William Pulling. Mr. Pulling was presented with the appropriate credentials and advised of our authority. He acknowledged our authority. Mr. Pulling stated that Frank Crislip had informed him of what was found yesterday and what paperwork we were needing.

We initially discussed some of the violations noted on the day before and agreed to a meeting to summarize the inspection findings with his General Manager, Troy Jones, and anyone else they wished, after we finished the inspection.

We proceeded to the sump tank outside of Bay 3 to collect a sample from the secondary containment area. The fork lift utilized to lift the steel plate cover would not start so we went back inside. During this time some of the areas where violations had been noted on the previous day were pointed out to the facility representative and/or this inspector's supervisor.

The 8000 gallon hazardous waste tank used for less than 90 day storage that is located inside Bay 3 was discussed with the facility representative. This tank is equipped with a crude overfill prevention control device consisting of a stick mounted on a float. The stick is visually inspected to determine when the tank is full. According to facility personnel, this tank has been overfilled, and the contents were contained in the secondary containment. This tank receives waste from the 300 gallon sump tank outside of Bay 3 which has an automatic feed pumping hazardous waste inside to this tank. There are no automatic feed cutoff devices, no high level alarm systems (visual or audible), nor is a by-pass to a standby tank provided. The overflow valve has been capped and sealed, this is an area of concern due to the fact that the tank is vented to the outside ambient air. In the event of an overflow the float could form a seal or restrict the flow of the waste from overtopping the tank into the secondary containment area and instead the waste could overflow out the vent pipe resulting in an uncontrolled release.

Mr. Pulling was informed that this inspector had advised Mr. Crislip that the tank needed to be emptied of it's contents every 90 days. Basically the solids needed to be removed and shipped off site quarterly instead of storing them in the tank. According to facility personnel,

the tank solids are only removed about once every two years now, and the solids are currently about two feet deep in the tank. The facility is storing hazardous waste (stripping waste solids) in the tank for greater than ninety days without a permit or an extension, this is in violation of 40 CFR 262.34(b). The liquid portion of the hazardous waste stored in this tank is manifested offsite to Waste Management of Ohio, Inc. in Vickery, Ohio, for deep well injection, every ninety days or less. (See Attachment J).

Given the number of open containers accumulating hazardous waste previously referenced on pages 1-4 of this report; the improper disposal of hazardous waste into "trash only" containers at this facility as documented on page 3 of this report, and the liquids accumulating in the secondary containment system of the sump tank outside of Bay 3, it was determined that this facility is not maintained and operated to minimize the possibility of a release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, this is in violation of 40 CFR 265.31.

Samples were collected from the secondary containment system from the sump tank outside of Bay 3 at 12:05 p.m. A "Receipt for Sample" was issued to the facility. (See Attachment K). The samples were analyzed for TCLP metals, TCLP volatile organics, and TCLP semi-volatile organics. The lab results indicate that there were no leachable hazardous waste constituents detected, at the detection limits given on the laboratory reports. (See Attachment L).

The facility's contingency plan does not describe the arrangements agreed to by local police departments, fire departments, hospitals, contractors and State and local emergency response teams to coordinate emergency services, pursuant to 265.37, this is in violation of 40 CFR 265.52(c) as referenced by 262.34(a)(4). The plan does mention that the Bridgeport Fire Department, Harrison County Emergency Services, and United Hospital Center's Environmental Team have toured the facility to be familiarized with the hazardous materials and processes at the facility. (See Attachment I).

Three police departments are listed on the list of emergency telephone numbers, however, a specific police department has not been designated primary emergency authority, this is in violation of 40 CFR 265.37(a)(2) as referenced by 262.34(a)(4). (See Attachment I).

The facility's contingency plan does not include a list of all emergency equipment (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), nor does it include the location and a physical description of each item on the list, and a brief outline of its capabilities, this is in violation of 265.52(e) as referenced by 262.34(a)(4). (See Attachment I).

The facility did not review and immediately amend the contingency plan when the list of emergency coordinators changed due to personnel changes, this is in violation of 40 CFR 265.54(d). The Emergency Action/Contingency Plan is dated 10-16-97, and the date on the List of Emergency Phone Numbers is 10-9-97. (See Attachment I).

Employee training was discussed with the facility representatives. The records and documents provided by the facility upon request were insufficient for demonstrating compliance with the personnel training requirements pursuant to 40 CFR 265.16. The records provided however, were reviewed.

The facility had a written copy of the training manual for the safety training that was to be given to the employees in 1999 and a Safety Training Plan. (See Attachments M and N respectively). The regulations require the facility to have a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position at the facility related to hazardous waste management. The facility did not have the required written description, this is in violation of 40 CFR 265.16(d)(3) as referenced by 40 CFR 262.34(a)(4).

The facility provided a list of employees and job titles for facility personnel. (See Attachment O). The regulations require the facility to maintain records that include the job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job. The list provided, lists personnel who do not have positions related to hazardous waste management and does not list some personnel who do have positions that are related to hazardous waste management, this is in violation of 40 CFR 265.16(d)(1) as referenced by 40 CFR 262.34(a)(4).

The facility was unable to provide a written job description for each position related to hazardous waste management, this is in violation of 40 CFR 265.16(d)(2). This description must include requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position related to hazardous waste management.

The facility did not have records that document that the training or job experience required under 265.16 (a), (b), and (c) have been given to, and completed by, facility personnel, this is in violation of 40 CFR 265.16 (d)(4) as referenced by 40 CFR 262.34(a)(4).

There was a lengthy closing discussion with the facility representatives to summarize the items of non-compliance noted at the facility during this two day inspection. Items discussed included the physical conditions of the waste management areas, the training records and the contingency plan.

Concern was expressed in regards to the facility's choice to designate the Director, Human Resources as the person with authority to implement the contingency plan, until the Local Fire Chief is on scene. The Local Fire Chief has authority over the command center until the response activity ceases then authority reverts back to the Director of Human Resources.

In accordance with 40 CFR 265.55, the facility needs to consider designating a Primary Emergency Coordinator and alternates, who are thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout, and have the authority to commit the resources needed to carry out the plan.

The emergency procedures the emergency coordinator must perform are given in 40 CFR 265.56 in detail. Upon revision of the facility's contingency plan these procedures should be considered for incorporation into the plan.

We suggested that the facility representatives call us if they had any questions about what was discussed or what they needed to do to correct the items of non-compliance that were summarized. We then thanked the facility representatives for their cooperation and departed the facility.

#### Waste Minimization

The facility was not asked to provide a copy of their written waste minimization plan. Waste minimization was not discussed with facility personnel during this inspection.

#### **Compliance Evaluation**

Please refer to the "Notice of Violation" for the violations cited during this inspection.



## BUREAU OF ENVIRONMENT DIVISION OF ENVIRONMENTAL PROTECTION

CECIL H. UNDERWOOD GOVERNOR Office of Waste Management

MICHAEL C. CASTLE DIRECTOR

## **NOTICE OF VIOLATION**

DATE	:	TIME:	12:30 p.m.
ISSUE	D TO: Bombardier Aerospace d.b.a. West Virginia Air Center		
EPA I	D.#: WVD988776852		
FACII	ITY MAILING ADDRESS: 2400 Aviation Way Bridgeport, WV 2633	0	
FACII	ITY REPRESENTATIVE: William E . Pulling		
	On the date and time specified, an authorized agent of the Chief of the Office of Waste Managacility described above in accordance with West Virginia Code, Chapter 22, Section 18 and to §22-18. During that inspection the following violation(s) were noted:		
1.A. (I	Regulation) 40 CFR 265.173(a) as referenced by 262.34(a)(1)(i) as referenced	nced by 3	3 CSR 20-5.1
B. (F	acts) Containers holding hazardous waste were not kept closed.		
2.A	40 CFR 262.34(a)(2) as referenced by 33 CSR 20 Section 5.1		•
ВС	Containers holding hazardous waste were not marked with accumulation st	art dates	
3.A4	0 CFR 262.34(a)(3) as referenced by 33 CSR 20 Section 5.1		
В. <u>Т</u>	he 300 gallon tank and other containers holding hazardous waste were not la	beled or 1	narked with the
W	ords "Hazardous Waste".		
4.A. <u>4</u>	0 CFR 262.34(b) as referenced by 33 CSR 20 Section 5.1		
В. <u>І</u>	Hazardous waste has been stored on site for greater than ninety days without	a permit, o	or an extension,
<u>thi</u>	s storage occurred in at least three containers and one tank.		
5.A. <u>4</u>	0 CFR 265.35 as referenced by 262.34(a)(4) as referenced by 33 CSR 20	Section 5	.1
B. <u>A</u>	sisle space in the drum storage area was not maintained to allow the unobs	tructed m	ovement of
p	ersonnel, fire protection equipment, spill control equipment, and decontant	ination ec	uipment in the
<u>e</u>	vent of an emergency.		
6.A. <u>4</u>	0 CFR 262.34(c)(1)(ii) as referenced by 33 CSR 20 Section 5.1		
В. <u>С</u>	Containers holding hazardous waste in the satellite accumulation area were no	ot marked	with the words
"H	azardous Waste" or other words that identified the contents		

7. A. (Regulation) 40 CFR 270.1(c) as referenced by 33 CSR 20 Section 11 B. Disposed of hazardous waste as identified or listed in 40 CFR part 261 without the required permit. 8. A. 40 CFR 262.11 as referenced by 33 CSR 20 Section 5.1 B. The facility had not made hazardous waste determinations on the containers of out dated or off-spec products accumulating outside the chemical storage room. 9. A. 40 CFR 265.194(b)(2) as referenced by 262.34(a)(1)(ii) referenced by 33 CSR 20-5.1 B. The 300 gallon sump tank is not equipped with overfill prevention controls. 10.A. 40 CFR 265.193(c)(4) referenced by 262.34(a)(1)(ii) referenced by 33 CSR 20-5.1 B. Spilled or leaked waste and accumulated precipitation is not removed from the secondary containment system within 24 hours, or in as timely manner as possible to prevent harm to human health or the environment. 11.A. 40 CFR 265.52(d) as referenced by 262.34(a)(4) referenced by 33 CSR 20-5.1 B. The contingency plan did not list names and phone numbers (office and home) of all persons qualified to act as emergency coordinator. The list was not kept up to date. There were no addresses listed. The Primary Emergency Coordinator was not named in the plan, and others were not listed in the order in which they will assume responsibility as alternates. 12.A. 40 CFR 265.31 as referenced by 262.34(a)(4) as referenced by 33 CSR 20 Section 5.1 B. This facility is not maintained and operated to minimize the possibility of a release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. 13.A. 40 CFR 265.52(c) as referenced by 262.34(a)(4) as referenced by 33 CSR 20-5.1 B. The facility's contingency plan does not describe the arrangements agreed to by local police departments, fire departments, hospitals, contractors and State and local emergency response teams to coordinate emergency services, pursuant to 265.37. 14.A. 40 CFR 265.37(a)(2) as referenced by 262.34(a)(4) as referenced by 33 CSR 20-5.1 B. Three police departments are listed on the list of emergency telephone numbers, however, a specific police department has not been designated primary emergency authority. 15.A. 40 CFR 265.52(e) as referenced by 262.34(a)(4) as referenced by 33 CSR 20-5.1 B. The facility's contingency plan does not include a list of all emergency equipment (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), nor does it include the location and a physical description of each item on the list, and a brief outline of its capabilities.

16.	A.	40 CFR 265.54(d) as referenced by 262.34(a)(4) as referenced by 33 CSR 20-5.1
F	3.	The facility did not review and immediately amend the contingency plan when the list of emergency
		coordinators changed due to personnel changes. The plan is dated 10-16-97, and the date on the
		List of Emergency Phone Numbers is 10-9-97.
17	A.	40 CFR 265.16(d)(3) as referenced by 40 CFR 262.34(a)(4) as referenced by 33 CSR 20-5.1
	В.	The facility did not have a written description of the type and amount of both introductory and
		continuing training that will be given to each person filling a position at the facility related to
		hazardous waste management.
18.	A.	40 CFR 265.16(d)(1) as referenced by 40 CFR 262.34(a)(4) as referenced by 33 CSR 20-5.1
	В.	The facility did not maintain records that include the job title for each position at the facility related
		to hazardous waste management, and the name of the employee filling each job.
19.	A.	40 CFR 265.16(d)(2) as referenced by 40 CFR 262.34(a)(4) as referenced by 33 CSR 20-5.1
	В.	The facility did not maintain a written job description for each position related to hazardous waste
		management that includes requisite skill, education, or other qualifications, and duties of facility
		personnel assigned to each position related to hazardous waste management.
20.	A.	40 CFR 265.16 (d)(4) as referenced by 40 CFR 262.34(a)(4) as referenced by 33 CSR 20-5.1
:	В.	The facility did not have records that document that the training or job experience required under
		265.16 (a), (b), and (c) have been given to, and completed by, facility personnel.
In o	rde	r to attain compliance with the cited Code and/or Regulations, you must perform the following remedial actions:
1	U	pon receipt of this notice, ensure that all containers holding hazardous waste are kept closed
-	ex	cept when adding or removing waste from the container.
2.	U	pon receipt of this notice, ensure that all containers holding hazardous are marked with the
	ac	cumulation start date.
3	<u>U</u> 1	pon receipt of this notice, ensure that all containers holding hazardous are marked with the words
	"I	Hazardous Waste".
4.	W	ithin 30 days of receipt of this notice, cease storage of hazardous waste for greater than 90 days.
	E	nsure solids are removed from the 8000 tank and all 55 gallon containers are shipped off-site every
_	niı	nety days to maintain compliance, unless a permit is obtained for storage.
5	U	pon receipt of this notice, establish and maintain aisle space to allow unobstructed movement of
_	pe	rsonnel, fire protection equipment, spill control equipment, and decontamination equipment
	-	rough out the facility (including the drum storage area).

6.	Upon receipt of this notice, mark all containers accumulating hazardous waste in the satellite
	accumulation areas with the words hazardous waste or other words which identify the contents.
7.	Upon receipt of this notice, cease on site disposal of hazardous waste. Ensure hazardous waste is not
	placed in trash only barrels.
8.	Within 30 days of receipt of this notice, perform hazardous waste determinations in accordance with
	40 CFR 262.11 on all solid wastes generated at the facility.
9.	Within 60 days of receipt of this notice, provide overfill protection controls on the 300 gallon
	stainless steel sump tank.
10.	Upon receipt of this notice, remove spilled or leaked waste and accumulated precipitation from the
	secondary containment system, thereafter monitor and remove liquids within 24 hours of discovery.
11.	Within 60 days of receipt of this notice, revise the contingency plan in accordance with 40 CFR
	Part 265.52(d); 265.52(c); 265.37(a)(2); 265.52(e); and 265.54(d).
12.	Within 60 days of receipt of this notice, complete a written description of the type and amount of
	both introductory and continuing training that will be given to each person filling a position at the
	facility related to hazardous waste management, there after maintain this record in accordance with
	40 CFR 265.16(d)(3).
13.	Within 60 days of receipt of this notice, make a list of job titles for each position at the facility related
	to hazardous waste management and the name of the employee filling each job thereafter maintain
	this document in accordance with 40 CFR 265.13(d)(1).
14.	Within 60 days of receipt of this notice, complete a written job description for each position related
	to hazardous waste management that includes requisite skill, education, or other qualification, and
	duties of facility personnel assigned to each position related to hazardous waste management.
15.	Within 60 days of receipt of this notice, document the training or job experience required under
	265.16(a), (b),(c) have been given to, and completed by, facility personnel in accordance with 40
	CFR 265.16 (d)(4).
16.	Upon of receipt of this notice, maintain and operate the facility to minimize the possibility of a
	release of hazardous waste or hazardous waste constituents to air, soil, or surface water.
17.	Within 90 days of receipt of this notice, provide documentation that the actions necessary to return
	to compliance have been completed.
A co	ppy of this Notice of Violation will be forwarded to the Enforcement Unit of the Office of Waste Management. The issuance
of th	us Notice may result in an administrative civil penalty being levied in accordance with West Virginia Code §22-18-17.
Dist	rict Phone: _(304) 367-2724
Dist	rict Fax: (304) 367-2727 Title: Environmental Inspector

## Attachment A



Office of Air Quality 1558 Washington Street, East Charleston, WV 25311 Telephone Number: (304) 558-0885 Fax Number: (304) 558-1222



## West Virginia Division of Environmental Protection

Cecil H. Underwood Governor Michael C. Castle Director

#### INSPECTION FACT SHEET

**COMPANY NAME:** 

Bombardier Aerospace, West Virginia Air Center

EPA ID #:

WVD988776852

PLANT ID #:

033-00132

PERMIT #:

No Reg. 25 Permit.

**MAILING ADDRESS:** 

2400 Aviation Way

Bridgeport, WV 26330

**FACILITY TYPE:** 

Subpart CC, < 90 Day Drum Storage and Tanks

LOCATION: Bridgeport Airport, 5 miles east off I-79 Bridgeport/ Clarksburg Exit

**COUNTY:** 

Harrison

**REGION:** 

6

**COMPANY CONTACT:** 

Mr. William Polling

PHONE:

(304) 842-6300

**PURPOSE:** Compliance Evaluation

APPLICABLE REGS:

45CSR25, 40 CFR 265 Subparts CC

DATE INSPECTED:

August 24, 1999

**INSPECTORS:** 

Jon McClung and Brandon Miller

DATE PREPARED:

September 15, 1999

PREPARED BY:

Brandon Miller

**REVIEWED BY:** 

Lucy Pontiveros

**FACILITY STATUS CODE:** 

10, Not in compliance

**VIOLATIONS:** 

45CSR25-4.6, 40CFR265 1085 (b),

A-2



#### INSPECTION MEMORANDUM

#### DIVISION OF ENVIRONMENTAL PROTECTION

West Virginia Office of Air Quality

Company: Bombardier Aerospace	Facility: West Virginia Air Center - Bridgeport
Region: 6 Plant ID#: 033-00132	Regulations: 45CSR25, 40CFR265 Subpart CC
Inspected By: Brandon Miller	Title: EIT II
Memo Date: September 15, 1999	Inspection Date: August 24, 1999

#### INTRODUCTION

On August 24, 1999, an unannounced inspection of the operations at Bombardier's West Virginia Air Center, located in Bridegeport, was conducted. The inspection was performed by Jon McClung and Brandon Miller of the Office of Air Quality. The purpose of the inspection was to check for compliance with RCRA Subparts AA, BB and CC. The facility escort for the inspection was Mr. Bill Pulling, Environmental, Health, and Safety Manager. The inspection lasted approximately 2 hours and consisted of a visual inspection of the work areas, waste storage areas, review of the waste analysis performed, and a closing meeting.

#### PROCESS DESCRIPTION

West Virginia Air Center performs maintenance on small to medium sized commercial airplanes. The type of maintenance performed includes engine overhauls, parts replacement and checks, and painting. The main focus of the inspection was on the paint stripping operation which is performed in only one of the maintenance bays. The WV Air Center strips paint off of airplanes by applying formic acid to an area on the plane and allowing it to sit. Over time, the formic acid will strip the paint off of the plain at which time the paint and acid wastes are allowed to drop onto the floor as it is being scraped off. This waste is then washed into a drain with water were the waste mixture is gravity feed into a sump. The sump consists of a 300 gallon steel tank that is placed underground in a concrete lined pit that is approximately six feet by four feet by ten feet deep. When the waste reaches a certain level in the tank it is then pumped to a 8,000 gallon "Stripper Water" Tank. This tank is located inside of the bay where the paint is removed. The wastes are held in the Stripper Water Tank for less than 90 days, at which time tank trucks remove the wastes for disposal off-site. The rest of the facility is comprised of maintenance areas that do not perform paint stripping.

#### OPERATING CONDITIONS

A-3

The first area inspected revealed that hazardous waste satellite accumulation drums were being left with the lids cracked between 1/2" to 1". Some of the satellite accumulation drums had pools of liquid on top of the lids. This would likely cause a spill of the hazardous waste onto the floor the next time that the lids were removed. Next, the bay where the paint is stripped from the airplanes was inspected, since this is were the less than 90 day storage area is located. The drums that could be inspected appeared to be in good condition with the lids in place and less than 90 day accumulation dates. However, the drums were being placed so that they were six or seven deep and seven across with the drums all pushed up against the corner of the building's wall. Also, there was other obstacles that effectively blocked access to the majority of the drums. This made it impossible to ascertain the condition of the drums, the contents of the drums, and the dates of accumulation for any of the drums except those seven that were in the front.

The sump area where the acid and paint wastes drain was examined next. As the three steel doors that cover the sump were removed, a strong, pungent odor was noticed by the inspectors. The concrete pit (secondary containment) had what appeared to be approximately 50 gallons of the Running through the concrete secondary containment was hazardous waste contained. approximately a 12 inch line that had a three inch leg that could dump into the secondary containment. The 12 inch line also had a large valve connected just before it exited the secondary containment. When asked the purpose of the large line, valve, and leg, the OAQ was informed that the 12 inch line connects to another maintenance bay which had previously also been used to perform paint stripping but now has been converted to only maintenance. The wastes from that now converted paint stripping bay were then allowed to travel through the 12 inch line to the leg and into the secondary containment of the current paint stripping bay. The OAQ was assured that the connection to the old paint stripping bay that had been converted had a closed valve in the line so that no wastes from the converted bay could flow into the current stripper water sump secondary containment. The reason for the 12 inch line entering the secondary containment had been explained but no the purpose of the valve or the fact that the 12 inch line also exited the secondary containment. The valve had been closed to prevent any of the hazardous waste from entering into the city sewer system, which is what the 12 inch line ties into. It was also noted that the three steel plates used to cover the opening of the sump area had what appeared to be a rubber gasket in place. This gasket was in very poor condition and would likely not prevent the release of any vapors.

Next, the inspectors observed the 8,000 gallon Stripper Water Tank. The question was asked if a waste determination had ever been performed on the stripper water and Mr. Pulling told us that he thought that he had that information in his office. The tank appeared to be in good condition with no signs of leaks. The tank was clearly labeled hazardous waste. One item of concern was that a vent was noticed on the tank. This vent traveled just outside of the work area where it was allowed to vent freely to the atmosphere. The inspection next focused on the old paint stripping bay that had been converted to a maintenance only bay. There was a satellite accumulation area in this bay that had more drums with liquids pooled on the top of the lids. When asked where the wastes would go if someone opened a lid and the liquid was spilled, Bombardier officials acknowledged that the floor drains in that maintenance bay are connected to the city sewer system. The inspectors then made copies of the waste analysis performed on the stripper water dated January 29, 1999. The waste analysis showed that no organics had been detected. However, it was determined at that time to be inadequate for the purposes of Subpart CC, with notes in the analysis saying that the detection limit

A 4

was in excess of the regulated limit.

#### CONCLUSIONS

A request for a new waste analysis was made at the time of the closing meeting with Mr. Pulling, since it appears that the analysis performed (reported February 16, 1999) was inadequate. On September 13, 1999, a letter was received from Bombardier. The letter states that an analysis of the waste sampled on February 28, 1999, and reported March 10, 1999, did show the concentrations of organics in the stripper water to be at 1400 ppm, 1200 ppm, and 1200 ppm, from three samples of the hazardous waste that were taken. These samples were analyzed using EPA Method 25D. Moreover, the information sent to the OAQ from Bombardier included a MSDS for the solution used to remove the paint from the airplanes. While the solution does have formic acid (4-7%) as Bombardier had informed the OAQ, it also contains d-limonene (<5%), benzyl alcohol (15-20%), and benzyl formate (5-10%). All of this means that the 8,000 gallon Stripper Water Tank and the sump would be regulated by Subpart CC. Since the 8,000 gallon Stripper Water Tank was observed to have no emissions control device the company is in violation of 40CFR265.1085(b).

The facility has known or should have known that the stripper water is in fact an organic hazardous waste since March 10, 1999. Bombardier has continued operation of the hazardous waste storage system and at the time of the inspection did not appear to be in the process of upgrading any of their system so that it would be in compliance with 45CSR25 and 40CFR265. Also during the inspection, a number of potential violations of 40CFR265 were noticed that fell outside of 45CSR25 (40CFR265 Subparts AA, BB, and CC), which was the focus of this particular inspection. These concerns included hazardous waste stored in the secondary containment, floor drain lines that are connected to the city sewer (some valves closed and some without valves at all), aisle space requirements, hazardous waste on top of the satellite accumulation drums, and open satellite accumulation drums. Joyce Moore and John Hando of the Office of Waste Management (OWM) branch located in Fairmont have been notified of the observations made during the inspection. At several points throughout the inspection, Mr. Pulling indicated that he would like to make changes to the way hazardous wastes were being handled. For example he mentioned that he had looked for a device to limit the emissions from the tank but could not find one, that he had wanted to move the less than 90 day storage outside of the working area, and that he knew that the drains connecting to the city water was not a good idea. He had also admitted that he had been hired within the last five months and that changes were not occurring as quickly as he would have liked. A joint OWM and OAO inspection would be in order within the next month due to the nature and number of potential problems and likely RCRA violations both from OAQ and OWM.

Brandon Miller
EIT II

## Attachment B

# Petroleum Recyclers and Environmental Services, Inc.

3 PRINGLE TREE ROAD • BUCKHANNON, WV 26201 • 304-472-5806 E.P.A. I.D. # WVR000000554 • BUS, LIC. # 55-0756964

**USED OIL MANIFEST** 

(Non-Hazardous)

26131

DATE OF SERVICE 11-30 99	DRIVER'S SIGNATURE	MIL L	14	<u> </u>	ACCT. #
COMPANY AND LOCATION			BILLING AD	DRESS	7.001. #
WEST VIRGINIA AIR CENTER			•		
2400 AVIATION WAY					
BRIDGEPORT, WV 26330					
CONTACT	PHONE NO.		SERVICE TI	ERM:	
TIM COTTREL/DAVE TURNER	304-84	2-6300	2 WEEKS		
TIME OF SERVICE	NEXT SERVICE		TANK SIZE		
	STARTING	ENDING	TANK TRU	UNIT	
WASTE DESCRIPTION	INCHES	INCHES	GAL/CPS	PRICE	TOTAL
FOR RECYCLING OF SIXC	Fuel		49031N	C	
OILY WATER FOR DISPOSAL					
USED ANTIFREEZE FOR RECYCLING					
OIL FILTER - DRUM - REMOVED					
HOURLY PUMP TRUCK CHARGE	, ,				
Last Serviced 11/5/99					
Contract Expires OFF-SPEC FUEL					
SEE TIM OR DAVE BEFORE PUMPING			1		
TANK MON	ITOR SERVICE			TOTAL	
TANK/OIL TESTED FOR CONTAMINATION YES	NO PPM	•		TAX	
TANK TESTED FOR WATER, ANTIFREEZE CONTA	MINATION YES	_ NO #OF GA	L	TOTAL	

P.R.E.S RECEIVABLES					
PAYMENT RECEIVED  AMOUNT RECEIVED  CHECK NO.  DATE RECEIVED	TO BE YES NO BILLED? P.O. #				

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, PETROLEUM RECYCLERS AND ENVIRONMENTAL SERVICES, INC. SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEYS FEES, GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED PETROLEUM RECYCLERS AND ENVIRONMENTAL SERVICES, INC., HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS A HAZARDOUS WASTE UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART261. GENERATOR AGREES TO INDEMNIFY AND HOLD PETROLEUM RECYCLERS AND ENVIRONMENTAL SERVICES, INC., HARMLESS FOR ANY DAMAGES, COSTS. ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

GENERATOR/CUSTOMER SIGNATURE

## **Petroleum Recyclers** and Environmental Services, Inc.

**USED OIL MANIFEST** 

(Non-Hazardous)

3 PRINGLE TREE ROAD • BUCKHANNON, WV 26201 • 304-472-5806 E.P.A. I.D. # WVR000000554 • BUS. LIC. # 55-0756964

25892

DATE OF SERVICE 11-5-99	DRIVER'S SIGNATURE	Mit L	).(	1007
COMPANY AND LOCATION			BILLING ADDRES	ACCT. #
WEST VIRGINIA AIR CENTER				
2400 AVIATION WAY				
BRIDGEPORT, WV 26330				
CONTACT	PHONE NO.		SERVICE TERM:	
TIME OF SERVICE TURNER	NEXT SERVICE	304-842-6300	TANK SIZE All In	OLIOV.
WASTE DESCRIPTION	STARTING INCHES	ENDING INCHES	NET UN GAL/CPS PRI	TOTAL
USED OIL FOR RECYCLING			500 % NC	
OILY WATER FOR DISPOSAL				
USED ANTIFREEZE FOR RECYCLING				
OIL FILTER - DRUM - REMOVED				
HOURLY PUMP TRUCK CHARGE				
10/14/99 Contract Expires				
SEE TIM OR DAVE BEFORE PUM	PING			
TANK MON	ITOR SERVICE		TOT	AL
TANK/OIL TESTED FOR CONTAMINATION YES		1.	TAX	
TANK TESTED FOR WATER, ANTIFREEZE CONTAI	1	NO #OF GA	L. TOT	AL

P.R.E.S RI	ECEIVABLES
PAYMENT RECEIVED  AMOUNT RECEIVED  CHECK NO.  DATE RECEIVED	TO BE YES NO BILLED? P.O. # REMARKS:

CHARGE MY ACCOUNT FOR THIS TRANSACTION UNLESS OTHERWISE INDICATED IN THE PAYMENT RECEIVED SECTION. INVOICES REFLECTING CHARGES TO CUSTOMER ARE SUBJECT TO AN INTEREST RATE OF THE LESSER OF 1 1/2% PER MONTH (18% PER ANNUM) OR THE MAXIMUM RATE ALLOWED BY LAW ON ANY INVOICES THAT ARE NOT PAID WITHIN 30 DAYS. IN THE EVENT OF DEFAULT, PETROLEUM RECYCLERS AND ENVIRONMENTAL SERVICES, INC. SHALL BE ENTITLED TO RECOVER COSTS OF COLLECTION, INCLUDING REASONABLE ATTORNEY'S FEES, GENERATOR WARRANTS AND REPRESENTS THAT THE MATERIALS PROVIDED PETROLEUM RECYCLERS AND ENVIRONMENTAL SERVICES, INC., HEREUNDER HAVE NOT BEEN MIXED, COMBINED, OR OTHERWISE BLENDED IN ANY QUANTITY WITH MATERIALS CONTAINING POLYCHLORINATED BIPHENYLS (PCB) OR ANY OTHER MATERIAL DEFINED AS A HAZARDOUS WASTE UNDER APPLICABLE LAWS. INCLUDING BUT NOT LIMITED TO 40 CFR PART261. UNDER APPLICABLE LAWS, INCLUDING BUT NOT LIMITED TO 40 CFR PART261. GENERATOR AGREES TO INDEMNIFY AND HOLD PETROLEUM RECYCLERS AND ENVIRONMENTAL SERVICES, INC., HARMIESS FOR ANY DAMAGES, COSTS, ATTORNEY'S FEES, ETC. ARISING OUT OF OR IN ANY WAY RELATED TO A BREACH OF THE ABOVE WARRANTY BY THE GENERATOR.

GENERATOR/CUSTOMER SIGNATURE



# Attachment C Material Safety Data Sheet

## PHILJET® A AVIATION FUEL with PFA 56

PHILLIPS 66 CGMPANY A Division of Phillips Petroleum Company Bartlesville, Oklahoma 74004 PHONE NUMBERS
Emergency: (918) 661-8118
General MSDS Information:
(918) 661-5355
For Additional MSDSs: (918) 661-3709

## A. Product Identification

Synonyms: Aviation Turbine Fuel A with PFA 56; Kerosine Turbine

Fuel with PFA 55; Kerosine

Chemical Name: Mixture Chemical Family: Nydrocarbon Chemical Formula: Mixture CAS Reg. No.: Mixture Product No.: 30293

Product and/or Components Entered on EPA's TSCA Inventory; YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it may be subject to applicable TSCA provisions and restrictions.

## B. Components

Ingredients	CAS	X	OSHA	ACGIH
	Numbor	By Wt.	PEL	TLV
Kerosene, may include Paraffinic hydrocarbons includes, n-Octane n-Nonana Naphthenes Aromatic hydrocarbons includes, Benzene Toluene p-Xylene m-Xylene 0-Xylene 1,3,5-Trimethylbenzene 1,2,4-Trimethylbenzene 1,2,3-Trimethylbenzene Sulfur compounds PFA 56	8008-20-6 Various 111-65-9 111-84-2 Various 71-43-2 108-88-3 106-42-3 108-38-3 95-47-6 108-67-8 95-63-6 526-73-8 Various 111-77-3	100 > 50 > 50 > 3 < 33 < 17 < 0.8 < 1 < 3 < 1,4 < 3,8 < 0.3 < 0.3 < 0.1	NE NE 300 ppm 200 ppm NE NE 1 ppm 100 ppm 100 ppm 100 ppm 100 ppm 25 ppm** 25 ppm** NE NE	NE 300 ppm 200 ppm NE 10 ppm 50 ppm 100 ppm 100 ppm 100 ppm 25 ppmxx 25 ppmxx NE NE

Operations exempted by the Benzene Standard, 29 CFR 1910.1028, will have a 10 ppm 8 hour TWA.

\*\* As trimethylhenzene.

NA - Not Applicable NF - Nat Established

## C. Personal Protection Information

Ventilation: Use adequate ventilation to control below recommended

exposure levels.

Respiratory Protection: For concentrations exceeding the recommended exposure

level, use NICSH/MSHA approved air purifying respirator. In case of spill or leak resulting in unknown concentration, use NICSH/MSHA approved

supplied air respirator. If conditions immediately dangerous to life or health (IDLH) exist, use NIOSH/MSHA approved self-contained breathing

apparatus (SCBA).

Eye Protection: Use safety glasses with side shields. For splash

protection wear chamical goggles and face shield.

Skin Protection: Use protective garments to prevent skin contact. Use

neoprene or mitrile gloves.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

## D. Handling and Storage Precautions

Do not get in eyes, on skin or on clothing. Do not breathe vapors, miet, fume or dust. Do not swallow, may be aspirated into lungs. Wear protective equipment and/or garments described in Section C if exposure conditions werkent. Wash thoroughly after handling. Immediately remove and launder contaminated clothing before reuse. Use only with adequate ventilation.

Keep away from heat, sparks and flame. Store in well-ventilated area. Bond and ground during transfer. Store in closed container.

## E. Reactivity Data

Stability: Stable

Conditions to Avoid: Not Applicable

Incompatibility (Materials to Avoid): Oxygen and strong exidizing agents

Hazardous Polymerization: Will Not Occur

Conditions to Avoid: Not Applicable

Hazardous Decomposition Products: Carbon oxides and various hydrogarbons

formed when burned.

## F. Health Hazard Data

Recommended Exposure Limits:

See Section B.

#### Acute Effects of Overexposure:

Eye: Vapors may cause slight irritation. Liquid may cause intense = stinging without long term effects.

Skin: Repeated skin contact may cause severe skin irritation.

Inhalation: May cause headache, nauses and sedation.

Ingestion: May be irritating to intestines. If swallowed, may be aspirated resulting in inflammation and possible fluid accumulation in the lungs.

#### Subchronic and Chronic Effects of Overexposure:

Kerosene generally contains behiene which has been designated a carcinogen by the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC), and the Occupational Safety and Health Administration (OSHA). Benzene may produce blood changes which include reduced platelets, red blood cells, and white blood cells; also aplastic anemia, and acute nonlymphatic leukemia. Benzene has produced fetal death in laboratory animals and caused chromosome changes in humans and mutation changes in cells of other organisms. Kealth effects attributable to benzene are not known to occur in humans exposed to kerosene.

Korosene has caused kidney injury in male rate only. No comparable health hazard for kidney disease is known to occur in humans.

Exposure of pregnant rats during gestation to toluene at levels of 250 ppm and higher produces some maternal toxicity and embryo/fetotoxicity. A lifetime inhalation study in rats did not show any toxic effects even at the high dose of 300 ppm. Behavioral signs of hearing loss were observed in rats exposed to toluene subchronically at levels of 1000 ppm or more. Comparable effects have not been reported in humans.

Liver and kidney changes have been noted in long term studies in animals exposed to xylenes. Fetotoxicity has been observed in animals with subchronic exposure to mixed xylenes at concentrations approximately five times the permissible exposure limit.

An epidemiology study of workers exposed to two isomers of trimethylbenzene had symptoms of nervousness, tension and anxiety, and asthmatic bronchitis. In addition, after inhalation of 60 ppm measured as hydrocarbon vapor, the workers' pecipheral blood showed a tendency to hypochromic anemia and a deviation from normal in the coagulability of the blood.

#### Other Health Effects:

Combustion (burning) of most carbon-containing material forms carbon monoxide. Carbon monoxide inhalation may cause carboxyhemoglobinemia. Chronic exposure to carbon monoxide causes fatigua, poor memory, loss of sensation in fingers, visual disturbances and insemnia. Carboxyhemoglobinemia is frequently misdiagnosed as flu.

Sensitive sub-populations to the inhalation of carbon monoxide exist. Carbon monoxide displaces oxygen in the bloodstream and therefore, can adversely effect people with pre-existing heart disease, pregnant women and smokers.

P.06 P.05

#### Health Hazard Categories:

An	imal Muman			Animal	Human
Known Carcinogen Suspect Carcinogen Mutagen Teratogen Allergic Sensitizer Highly Toxic	<u>x</u> <u>x</u> =	Toxic Corresive Irritant Target Organ Specify -	Toxin Lungs-Aspiration Blood, Liver an Reproductive To	d Kidney	Toxin;

#### First Aid and Emergency Procedures:

Eye: Flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Skin: Immediately wash skin with soap and water for at least fifteen minutes. If irritation or sdwarse symptoms develop, seek medical attention.

Inhalation: Remove from exposure. If breathing is difficult, give oxygen.

If breathing ceases, administer artificial respiration followed by oxygen. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

Note to Physician: Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

## G. Physical Data

Appearance: Colorloss Liquid
Odor: Mild
Boiling Point: 300-372F (149-300C)
Vapor Pressure: <f
Vapor Density (Air = 1): Not Setablished
Solubility in Water: Negligible
Specific Gravity (H20 = 1): 0.775-0.840
Percent Volatile by Volume: 100
Evaporation Rate (Ethyl Ether = 1): <1
Viscosity: 8 cSt 3 -4F (-20C)

49.

C-5

## H. Fire and Explosion Data

Flash Point (Method Used): 108-150F (38-66C)(TCC, ASTH D-56) Flammable Limits (X by Volume in Air): LEI - Not Established UEL . Not Established

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus (SCBA) and other protective equipment and/or garments described in Section C if conditions warrant. Water fog or apray may be used to cool exposed containers and equipment. Do not sprmy water directly on fire - product will float and could be reignited on

Fire and Explosion Kazards: Carbon oxides and various hydrocarbons formed when burned. Combustible varors may accumulate and flash or

explode if in contact with ignition SCUTCO.

surface of water.

## I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled: Evacuate area of all unnecessary personnel. Wear protective equipment and/or germents described in Section C if exposure conditions warrant. Shut off source, if possible and contain spill. Protect from ignition, Keep out of water sources and sewers. Absorb in a dry, inert material (sand, clay, etc). Transfer to disposal drums using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations); Incinerate or place in permitted waste management facility.

## J. DOT Transportation

Shipping Name: Fuel, aviation, turbine engine Hazard Class: 3 (Flummable liquid)

ID Number: UN 1863 Packing Group: III

Marking: Fuel, aviation, turbine engine, UN 1863

Label: Flammable liquid Placard: Flammable/1863 Mazardous Substance/RQ: Not Applicable

Shipping Description: Fuel, aviation, turbing engine, 3 (Flammable liquid), UN 1863, PG III
Packaging References: 49 CFR 173.150, 173.203, 173.241

This product may be reclassed as a combustible liquid when shipped domestically, by land only. If reclassed as a combustible liquid, this product is unregulated by DOT when shipped in non-bulk quantities.

C-6

## K. RCRA Classification - Unadulterated Product as a Waste

Ignitable (D001)

Prior to disposal, consult your environmental contact to determine if TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

## L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

## M. Hazard Classification

This product mosts the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

 Compressed Gas	Flammable Aerosol Explosive X Health Hazard (Section F) Organic Peroxide	Oxidizer Pyrophoric Unstable Water Reactive

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

#### N. Additional Comments

SARA 313

This product contains the following chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. (See Section B).

```
Benzene
Toluene
p-Kylene
o-Kylene
m-Kylene
1,2,4-Trimethylbenzene
```

NFPA 704 Hazard Codes - - - - - - Signals

		Least - O
Mealth :	2	Slight - 1
Flammability:	2	Hoderate • 2
Reactivity :	0	High - 3
Special Has :	-	Extreme - 4

Phillips Permanen Company inferences to Paintot Petroleum Company of Phillips include: it's divisions, efficient and subject sections in the information contained herein (including data and statemental is decirate as of the deap hereof. NO WARRINTY OF MERCHANTABLITY, FIXNISS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRINGTON RESULTS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRINGTON RESULTS. The information provided entering elected only to the specific product designated and may out be valid where soft gradeen is used in constraint of the information of the specific product of signated and may out be valid where soft gradeen is used in constraint of the information of the specific product of the product and information refers a to herein are before the constraint of the product of the product of section for section of Philips, Philips approach of the product of section for section for the use of any product of state permitting of the product of section for the use of any product as a permitting existing per of the constraint of the use of any product and information for the use of any product as a medical that information for the use of any product and information for the use of any product of the product and information for the use of any product and any product any permitted and the product and any product any permitted and the product and any permitted any permitted and any permitted any permitted and any permitted and any permitted and any p

ORIGINAL --- RETURN TO GENERATOR

COUELING	AL CONSERVATION CORPORAT	ION CHE	UJMET 9	SERVICE	S INC. C	HEMICAL	CON	SERV	ATION O	F GEORG	SIA INC
SU	BPART CC AND LAND D	ISPOSAL I	REST	RICTIO	N NOTIFIC	ATION	CEF	RTIF	ICATIO	N FOR	M
Generato	or Name: WEST VIRGINIA	AIR CEN	TER			Manifest N				Page	1 of 3
- Note: Sp	aces in boxes correspond to line	e items in the i	manifes	t and ide	entify wastes	described	in it i	n the	following	order [	abcd
SUBPAR PART	T CC Indicate whether wastes on levels equal or greater that	n the manifest ar an 500 ppmw by	e regulat	ed under	Subpart CC for yes or an "N" for	containing or "no" as a	VOCs ppropr	in cor iate in	centration the boxes	ују	У
" LAND DI	SPOSAL COMPLETE THE	S FIRST	The	se waste	s are Wastewa	ter AB	<u>с</u> т	hese	wastes ar	e Non-Wa	stewater
SECTIO	N 1. THE WASTES REFERE	ENCED IN TH	HIS SE	CTION	DO NOT ME	ET LAN	VD D	ISPO	SAL RE	STRIC	TIONS
	CODE SUBCATEGORY/COM	USTITLIENT I	MII	CODE	CONSTITU	ENT	MLI		CODE		
<u>MLI</u>	A. RCRA Characteristic Was		TIT		Chlorobenze				C. RCRA	Listed	Wastes
* A	D001 Ignitable Liquids (TOC				Chloroform				F001)(	Select	
B	D001* Other Ignitables (TOC		111	D023*	o-Cresol					more con	
**   \( \frac{2}{3} \)	D002* Corrosive Wastes			D024*	m-Cresol		A		F003 X	below fo	
<del>                                      </del>	D003* Other Reactives [261.2	23(a)(1)]		D025*	p-Cresol				F004 F005	F001-F00 selecte	
*   -   -   -	D003* Water Reactives [261.			D026*	Cresol (Total	<b>(</b> )			Acetone	selecte	o nere
<del>                                      </del>	D003 Reactive Cyanides [26			D027*	p-Dichlorobe	nzene			Benzene		
*	D003 Reactive Sulfides [261			D028*	1,2-Dichloroe	ethane	HH	_	n-Butyl al	∞hol	
	D003* Explosives [261.23(a)(			D029*	1,1-Dichloroe	ethylene	$\Box$		Carbon d		
	D004 Arsenic			D030*	2,4-Dinitrotol	uene			Carbon te	etrachlori	de
34	D005 Barium			D031*	Heptachlor		Ш		Chlorobe		
	D006 Cadmium	. [		D032*	Hexachlorob	enzene			o'w'b- Cı		•
"	D006 Cadmium containing b	atteries		D033*	Hexachlorob	utadiene	$\vdash$		Cyclohex o-Dichlon		_
*	D007 Chromium			D034*	Hexachioroe	thane	$\vdash\vdash\vdash$	_	Ethyl ace		=
	D008 Lead	A	C	D035*	Methyl ethyl	ketone	$\vdash \vdash \vdash$		Ethylbenz		
	D008 Lead containing batter	ies		D036*	Nitrobenzene	3	+++		Ethyl ethe		
	D009 Low (<260 kg/mg) Mer			D037*	Pentachlorop	henol			Isobutano		
*	D009 High (>260) Mercury v			D038*	Pyridine				Methanoi		
<b>*</b>	D009 High Mercury without of				Tetrachloroe	•			Methylen		
	D009 Mercury wastewaters				Trichloroethy		A 10		Methyl et		
**	D010 Selenium				2,4,5-Trichlo	•	$\vdash \vdash \vdash$		Methyl iso Nitrobenz		one
	D011 Silver				2,4,6-Trichlo			_	Pyridine	.е. е.	
	D012* Endrin				Vinyl chloride				Tetrachlo	roethylen	ie
~**	D013* Lindane	_	, , , , ,	B. Cali	fornia List W	astes			Toluene	,	-
	D014* Methoxychlor	<u> </u>		Nickel					1,1,1-Tric	hloroetha	ane
	D015* Toxaphene	_		Thalliur				$\perp$	1,1,2-Tric	hloroetha	ine
	D016* 2,4-D	ļ		•	with PCB's		$\sqcup \bot$		1,1,2-Tric		,2-Triflu
	D017* 2,4,5-TP(Silvex)	L		Waste	with HOC's>1	000ppm	H		Trichloroe		n mothon
B		Does the waste					H	_	Trichloron Xylene(s)		эпепак
	1.	Inderlying Haz					$\Box$		2-Ethoxye		
		rES [★] NO [ Iniversal Treatn							2-Nitropro		
9# D O4	L			iluaiu (O	10) 101111 as pc	. 200.40			Chlorinate		arbon ·
	RCRA Listed Wastes (for cod- LIST ALL WASTE CODES - ENTER			CNTUCC	C AFTER MARK	E CODE II	APRI	ICAB	i E		<del></del> -
1 MLI	LISTALL WASTE CODES - ENTER	SUBCATEGOR	INFAN	CIVINCO	S AFTER WAST	E CODE, II	AFF	ICAB			
									· · · · · · · · · · · · · · · · · · ·		
erufy that	I have personally examined and I am famil	iar with the waste t	hrough an	alysis, test	ng or knowfedge o	of the waste to	о ѕирро	ri the i	information	provided in	this form.
SIGN	Print Name: Foscar le			Sign:	Jehn ,	tal	$\supset \ell$	1		X/23	
SECTIO	N 2. THE WASTES REFER	ENCED IN T	HIS SI	ECTION	MEET 14	ND DIS	POS	Al F	RESTRIC	CTIONS	
	LIST CODES, EACH FOLLOWED BY										
	EIGT GOODS, EAGHT OLLOWED BY	CON CINING C	.01101111	<u> </u>	TAKENTIESIS	- CITICIA 7		. 16197	<u> </u>		
	I certify under penalty of law that I have p	personally examined	d and I am	familiar w	uh the waste thro	ugh analysis	and test	ing or	through kno	wledge	
	of the waste to support this certification applicable prohibitions set forth in 40 C	that the waste com CFR 268.32 or RC	iplies with RA Section	the treatment 300-yal?	ent standards the	cified in 10 information	ÇFR Pa I submi	iri 268 iied is	Subpart Di true, accura	and all ue and	
	complete. I am aware that there are signi	jicani penallies for	3uomillin	g a Jaise ce	rily action inches	ing the bossii	ounty of	a jine	ana impriso	nment.	

SIGN Print Name:

Date:

Generator Name: <u>WEST VIRGINIA AIR CENTER</u>, Manifest No: <u>OO/BS</u> Page:
List all constituents on both pages of this document that are present in D001(except for TOC≥ 10%), D002, D003# and D012-D043 waste streams in concentrations above the stated levels. The regulatory levels are in total concentrations, unless noted with an asterick.

(# Explosive, water reactive and other reactive only) (WW: Wastewater, NWW: Non-Wastewater)

Insert the manifest line identifier (MLI) in the boxes to the left of the constituents. If using this form in association with a profile, place an X

in the box next to the appropriate constituents.

in the MLI	box	next to the appropriate constituents.	ww	WWW	MLI	<b>Y</b>	<b>WW4</b>
INIT	Т	]A2213	0.042		m-Cumenyl methylcarbamate @	0.056	1.4
	十	Acenaphthene	0.059				
	1	Acenaphthylene	0.059		Cydohexanone	0.36	0.75*
	7	Acetone	0.28		o,p'- DDD	0.023	0.087
	$\perp$	Acetonitrile	5.6		p,p'- DDD 	0.023	0.087 0.087
	1	Acetophenone	0.01		p,p'- DDE	0.031	0.087
	$\perp$	2-Acetylaminofluorene	0.059 0.29	N/A		0.0039	0.087
	4	Acrolein Acrylamide	19	23	P.P'- DDT	0.0039	0.087
	4	Acrylonitrile	0.24	84	Dibenz(a,h)anthracene	0.055	8.2
1-1-1	- -	Aldicarb sulfone @	0.056		Dibenz(a,e)pyrene	0.061	N/A
	+	Aldrin	0.021		1,2-Dibromo-3-chloropropane	0.11	15
1-1-1-	+	4-Aminobiphenyl	0.13	N/A	1,2- Dibromoethane (Ethylene dibromide)	0.028	15
1-1-	╫	Aniline	0.81	14	Dibromomethane	0.11	15
1-1-1	+	Anthracene	0.059	3.4	m-Dichlorobenzene	0.036	6
	十	Aramite	0.36	N/A	o- Dichlorobenzene	0.088	6
1-1-1	十	Barban @	0.056		p- Dichlorobenzene	0.09	6
	十	Bendiocarb @	. 0.056	1.4	Dichlorodifluoromethane	0.23	7.2
	$\top$	Bendiocarb phenol @	0.056	1.4	1,1- Dichloroethane	0.059	, 6
	T	Benomyl @	0.056	1.4	1,2- Dichloroethane	0.21 0.025	6 6
	$\perp$	Benz (a) anthracene	0.059		1,1- Dichloroethylene trans-1,2- Dichloroethylene	0.025	30
		Benzal Chloride	0.055	(10)	trans-1,2- Dichlorophenol	0.034	14
B	1	Benzene	0.14 0.11	6.8	2,4- Dictiorophenol	0.044	14
	+	Benzo (b) fluoranthene Benzo (k) fluoranthene	0.11		2,4-Dichorophenoxyacetic acid (2,4-D)	0.72	10
	+	Benzo (g,h,i) perylene	0.0055		1,2- Dichloropropane	0.85	18
	+-	Benzo (a) pyrene	0.061	3.4	cis-1,3-Dichloropropylene	0.036	18
1-1-1	┿	alpha-BHC	0.00014		trans-1,3-Dichloropropylene	0.036	18
1-1-1	╁	beta-BHC	0.00014		Dieldrin	0.017	0.13
1-1-	╁	delta-BHC	0.023	0.066	Diethyl phthalate	0.2	28
111	╁	gamma-BHC (Lindane)	0.0017	0.066	Diethylene glycol, dicarbamate @	0.056	1.4
	+	Bromodichloromethane	0.35		p-Dimethylaminoazobenzene	0.13	· N/A
	1	Bromomethane (Methyl bromide)	0.11		2,4-Dimethyl phenol	0.036 0.047	14 28
	Т	4-Bromophenyl phenyl ether	0.055		Dimethyl phthalate	0.047	1.4
	$\perp$	n-Butyl alcohol	5.6		Dimetilan @ Di-n-butyl phthalate	0.057	28
	L	Butyl benzyl phthalate	0.017		1,4-Dinitrobenzene	0.32	2.3
	_	Butylate @	0.042 0.066		4.6-Dinitro-o-cresol	0.28	160
++	+	2-sec-Butyl 4,6-dinitrophenol (Dinoseb)	0.006		2,4- Dinitrophenol	0.12	160
+++	+	Carbaryl @ Carbenzadim @	0.056		2.4-Dinitrotoluene	0.32	140
<del>                                     </del>	+	Carbofuran @	0.006		2,6-Dinitrotoluene	0.55	28
1-1-1	+	Carbofuran phenol @	0.056		Di-n-octyl phthalate	0.017	28
	+	Carbon disulfide	3.8		Di-n-propylnitrosamine	0.4	14
1	+	Carbon tetrachloride	0.057		1,4-Dioxane	12	170
H	+	Carbosulfan @	0.028		Diphenylamine	0.92	13
	+	Chiordane(alpha & gamma)	0.0033	0.26	Diphenylnitrosamine	0.92	13 N/A
	T	p-Chloroaniline	0.46		1,2- Diphenylhydrazine	0.087 0.017	6.2
	I	Chlorobenzene	0.057		Disulfoton Dithiocarbamates (total) @	0.017	28
$\square$	1	Chlorobenzilate	0.1		Endosulfan I	0.023	0.066
111	1	2-Chloro-1,3-butadiene	0.057		Endosulfan II	0.029	0.13
1-1-1	+	Chlorodibromomethane	0.057		Endosulfan sulfate	0.029	0.13
144	+	Chloroethane	0.27 0.036		Endrin	0.0028	0.13
1-1-1	+	bis-(2-Chloroethoxy)methane	0.038		Endrin aldehyde	0.025	0.13
1-1-1	+	bis-(2-Chloroethyl)ether 2-Chloroethyl vinyl ether	0.053		EPTC @	0.042	1.4
1-1-1	+	Chloroform	0.062		Ethyl acetate	0.34	. 33
1-1-1	+	bis-(2-Chloroisopropyl)ether	0.055		Ethyl benzene	0.057	10
	+	p-Chloro-m-cresol	0.018		Ethyl cyanide (Propanenitrile)	0.24	360
- -	+	Chloromethane (Methyl chloride)	0.19		Ethyl ether	0.12	160
	+	2-Chloronaphthalene	0.055		Ethyl methacrylate	0.14	160
	+	2-Chlorophenol	0.044		Ethylene oxide	0.12	NA
	+	3-Chloropropylene	0.036		bis(2-Ethylhexyl) phthalate	0.28	28
1	+	Chrysene	0.059		Famphur	0.017	15
	$\top$	o-Cresol	0.11		Fluoranthene	0.068	3.4
	1	Cresol (m-or p-isomers)	0.77	5.6	Fluorene	0.059	3.4
		-					5.155

Chemical Conservation of Georgia, Inc. Chemical Conservation Corp. Chem-Met Services, Inc. UNVERSAL TREATMENT STANDARDS(UTS)/UNDERLYING HAZARDOUS CONSTITUENTS(UHC) FORM Page \_2 of 2 Generator Name: WEST VIRGINIA AIR CENTER Manifest No: 00185 ww WW **WWW** MLI ww 0.056 1.4 0.056 1.4 Physostigmine @ Formetanate hydrochloride @ 0.056 1.4 0.056 1.4 Physostigmine salicylate @ Formparanale @ 0.056 1.4 0.0012 0.066 Heptachlor Promecarb @ 0.093 0.016 0.066 1.5 Pronamide Heptachlor epoxide 0.056 1.4 0.055 10 Propham @ Hexachiorobenzene 0.056 1.4 0.055 5.6 Hexachlorobutadiene Propoxur @ 0.042 1.4 Hexachlorocyclopentadiene 0.057 2.4 Prosulfocarb @ 0.067 8.2 0.055 30 Pyrene Hexachloroethane 0.014 16 0.035 30 Pyridine Hexachloropropylene 0.081 22 Safrole HxCDDs(All Hexachlorodibenzo-p-dioxins) 0.000063 0.001 0.72 7.9 HxCDFs( All Hexachlorodibenzofurans) 0.000063 0.001 Silvex (2,4,5-TP) 0.055 14 34 1,2,4,5-Tetrachlorobenzene 0.0055 Indeno (1,2,3-c,d) pyrene 0.000063 0.001 TCDDs (All Tetrachlorodibenzo-p-dioxins) 65 0.19 lodomethane 0.000063 0.001 TCDFs (All Tetrachlorodibenzofurans) 0.057 5.6 170 1,1,1,2-Tetrachloroethane Isobutyl alcohol 1,1,2,2-Tetrachloroethane 0.057 6 0.021 0.066 Isodrin 0.056 6 0.056 1.4 Tetrachloroethylene Isolan @ 0.03 7.4 2,3,4,6-Tetrachlorophenol 0.081 2.6 Isosafrole 0.019 1.4 0.0011 0.13 Thiodicarb @ Kepone 0.056 1.4 Thiophanate-methyl @ 84 Methacrylonitrile 0.24 0.056 0.28 0.75 5.6 Tirpate @ Methanol 0.08 10 0.081 1.5 Toluene Methapyrilene 0.0095 2.6 0.056 1.4 Toxaphene Methiocarb 0.042 0.028 0.14 Triallate @ Methomyl 0.63 15 Tribromomethane (Bromoform) 0.18 0.25 Methoxychlor 0.055 19 (36) 1,2,4-Trichlorobenzene 0.28 Methyl ethyl ketone 0.054 6 33 1,1,1-Trichlorethane 0.14 Methyl isobutyl ketone 0.054 6 0.14 160 1,1,2- Trichloroethane Methyl methacrylate 0.054 6 Trichloroethylene Methyl methansulfonate 0.018 N/A 0.02 30 Trichloromonofluoromethane 4.6 0.014 Methyl parathion 0.18 0.0055 15 2,4,5-Trichlorophenol 3-Methylcholanthrene 0.035 7.4 4,4-Methylene bis(2-chloroaniline) 0.5 30 2,4,6-Trichlorophenol 7.9 0.72 2,4,5-Trichlorophenoxyacetic acid(2,4,5-T) 0.089 30 Methylene chloride 0.85 30 1,2,3-Trichloropropane 0.056 1.4 Metolcarb @ 0.057 30 1,1,2-Trichloro-1,2,2-trifluoroethane 0.056 1.4 Mexacarbate @ 1.5 0.081 0.042 1.4 Triethylamine @ Molinate @ 0.11 0.1 tris-(2,3-Dibromopropyl) phosphate 5.6 0.059 Napthalene 0.042 1.4 N/A Vernolate @ 0.52 2-Naphthylamine 0.27 6 0.27 14 Vinyl chloride o-Nitroaniline 30 0.320.028 28 Xylene(s) p-Nitroaniline 590 1.2 Cyanides (Total) 14 0.068 Nitrobenzene 0.86 30 0.32 28 Cyanides (Amenable) 5-Nitro-o-toluidine N/A 35 0.028 13 Fluoride\*\* o-Nitrophenol 14 N/A Sulfide 29 0.12 p-Nitrophenol 2.1\* 1.9 28 Antimony 0.4 N-Nitrosodiethylamine . 5.0° 1.4 Arsenic 0.4 2.3 N-Nitrosodimethylamine · 7.6\* 1.2 0.4 17 Barium N-Nitroso-di-n-butylamine 0.82 0.014\* 2.3 Beryllium N-Nitrosomethylethylamine 0.4 0.69 0.19 2.3 Cadmium 0.4 N-Nitrosomorpholine 0.86\* 2.77 Chromium (Total) 35 0.013 N-Nitrosopiperidine 0.69 0.37 35 0.013 l ead N-Nitrosopyrrolidine N/A 0.20 Mercury (Nonwastewater from Retort) 0.056 0.28 Oxamyl 0.025 0.15 Mercury (All others) 0.014 4.6 Parathion 5.0° 3.98 10 Nickel 0.1 Total PCBs 0.82 0.16 0.042 1.4 Selenium Pebulate @ 0.30 0.43 Silver 10 0.055 Pentachlorobenzene 0.078 1.4 0.000063 0.001 Thallium PeCDDs (All Pentachlorodibenzo-p-dioxins) 0.23 4.3 0.000035 0.001 Vanadium\*\* PeCDFs(All Pentachlorodibenzofurans) 2.61 Zinc\*\* 0.055 Pentachloroethane 4.8 - Not UHC in characertistic wastes (268.2(i)). TCLP Values 0.055 Pentachloronitrobenzene 7.4 Do the waste stream(s) identified on the manifest listed above or on the attached 0.089 Pentachlorophenol 16 profile contain any of the constituents listed on this table in concentrations 0.081 Phenacetin 5.6 above the regulatory levels? 0.059 Phenanthrene 6.2 @ Between 8/26/96 and 8/26/97 these constituents are not UHCs. 0.039 Phenol o-Phenylenediamine @ 0.056 Robert 11-10-99 0.021 Phorate 0.055 Phthalic acid 0.055 Phthalic anhydride

### nomparaler zurospace With Aanagக்.....ச் Progre... ் Waste Stream Summary

## Attachment E

	Α	В	С	D	E	F	G	Н	П		К	1	Тм	N	0	Р	Q	R		<del>-</del> 1		1/ 1	14.1	V 1	σT	-1	i		<del>21 2 5</del>	T :=
1			Г	Con	taine	er Inf	orm	atio	_			-					omen		S		U	V	W		nga		AA  A	BIA	J AL	AL
2	Waste Stream Name	Waste Stream Number	Hazardous	Container Type	Outer Container	Size (Gat)	Container Top	Materials	Color Code	Approved Materials	Next Step	Flammable	Flammable		Level-Lock Rings	Equipment	2nd Containment	e e	Bonding & Ground	Bay 1 & 2	Battery Shop	Internal Shop	mposite Shop	Sheet Meta	m	4 1	Stores Paint Mixing	Room	Facility	Line Mntc
3	Alodine & Etch Rags	101	Yes	Piastic	1H2 G	55	Open	Solid	Bisch/White Stripe	All Alodine, Turco #5664 (WO 1), No Free Flowing Liquid	N/A				x					x			Ö	x	x	x				:
4	Waste Oil	102	S S	Steel	141	55	Closed	Liquid	Black/vellow Sinpe	Motor Oil. All Hydraulic Fluids. Greases, No Solvents, No Water, (Small Amounts of Jet A)	N/A			x			x			x	And the second s					x		×	: :	X
5	Aerosol Cans Punched	103	Yes	Steel	1A1	55	Closed	Liquid	Red/White Stripe	All Aerosols	Puncher Can     Allow to drain contains	X				x			x	X				-	-	x				
6	Aerosol Cans Not-Punched	103 B	Yes	Steel	1H2	70	Open	pijos	Red/White Stripe	All Aerosols	The whole can is disposed of in this waste stream	X			x						The second secon									x
7	Filter Crusher	None								Alt fuel, motor, & hydraulic filter	1.) Empty the oil collection container into William 102 2.) Disposal of Crushed filters Into WS 104 (Maybe able to recycle)			x		X				x						x				
8	Waste Filter	104	Regulated	Steel	1A2	30	Open	Solid	Greenwhite Stripe	Crushed or whole filters	, Crushed filter maybe recycled				x		1			x						x	-			X
9	Waste Antifreeze	105	2	Steel	141	55	Closed	Liquid	RedWhre	Antifreeze & Deicing Fluid				x			x			-								x		:
10	Waste O2 Generators (Expended)	106	Yes	Steel	1H2	30	Open	Solid	Bischwinde		After discharged unit and cooled, it can be then placed in this waste stream drum				x			The Oil Preshable to be placed in this Asia"									X		:	
11	Waste Paint Solid/Debris	107	, kes	Steel	1A2	55	Open	Solid	Red Solid	Paints/adhesives/apoxies sealants and item that contain. Like gloves, paper, mixing cups, tubes of sest, sanding dust, NEPA filters, etc.		X		1	x			1		x		X	x		x	x	2	K :		X

Waste Stream Summary

	Α	В	С	D	Ε	F	G	Н	II		К	1 1	М	N	0	Р	Q	- I	1	7.1	11.1	17.1	\A/	υT	VI.	714	. ATA	5146	1.5	1.5
1				Con		er Inf			n		1	-					omen	R I	S	T	U	V	wl		ngar		VA A	BAC	AD	AE
2	Waste Stream Name	Waste Stream Number	Hazardous	Container Type	Outer Container	Size (Gat)	Container Top	Materials	Color Code	Approved Materials	Next Step	Flammable	Flammable		Level-Lock Rings	<del></del>	2nd Containment	• 1	Bonding & Ground	Bay 1 & 2	Battery Shop	Internal Shop	Composite Shop		7	4 1	Stores Paint Mixing	Reom	Facility	Line Mntc
12	Waste Paint Liquid	108	Yes	Steel	141	55	Closed	Liquid	Magenta/Yellow Striped	- Liquid left over from a paint job -Solvent used to clean equipment or paint guns -No SOLIDS		x	x						x	x		x	X		x		)			
13	Waste Nickel Cadmium Cells	109	Yes	Plastic	1H2	55	Open	Solid							x		x				X			-						
14	Waste Nickel Cadmium Wash	110	Yes	Plastic	Ŧ	55	Closed	Liquid	Blue Sohd	All wash and rince water form battery or cell washing				x			x				X								Andrew Commission of the latest control of t	
15	Waste Oil Cans	111	2	Steel	141	5	Closed	Liquid		1.) Cut can top off 2.) Drain oil can for 24 hrs (NO FREEFLOWING LIQUID) 3.) Disposal can in regular trash (or Recycle 4.) Oil collected goes in WS102;						x		"Cut Can tops off and then drain"		x						x				x
16	Waste Absorbent	112	Yes	Steel	142	55	Open	Solid	White Solid	Pig Mats, Kit Litter					X					x		:	!			x		x		X
17	RCRA Empty Drums	113	Yes							Drums/pales that materials come in can be reused if are DOT condition. If not in DOT condition, then the drum is sent off-site as RCRA empty.	The drum must be storage on container side and all bungs must in place to ensure rain water does not enter the container											:	!				>			x
18		114	Yes	Steel	1A2	55	Open	Solid	Green Bolid	1.) Waste Baad Blaster 2.) Materials sweep-up from around the blaster. 3.) Material from HEPA vacuum cleaner. 4.) Paint sanding					x						x									
19	Waste Florescence Lamps	115	Yes	Fiberboard	16	30", 48", 8 95"		Solid		Building Lamps Aircraft Lamps								"Lempa can NOT be : Broken"		x		:			-	x			x	
20	Used Aircraft Tires	116	S S		1						Document the transaction. Must maintain prove that item was not disposed of in the regular trash.	!	1	: : ! !	1 1	1					:				1		x			x



#### Bombardier Aerospace Waste Management Program Waste Stream Summary

E-3

	Α	В	С	D	E	F	G	Н	1	J	K	ΤL	TN	111	To	Р	Q	R	S	Т	U	V	W	х	Υ	7 [	ΔΔΙΔ	ADIA	CAD	IAEI
1			Γ	Con	taine	er Inf	om	atio	1		<u> </u>	┪			ial R					<u> </u>	ت	•	**		anga		w   -	NIA	SIAD	AE
2	Waste Stream Name	Waste Stream Number	Hazardous Status	Container Type	Outer Container	Size (Gal)	Container Top	Materials	Color Code Tapo	Approved Materials	Next Step	Flammable	Flammable	-1-	X N	T =	2nd Containment	Ü	Bonding & Ground	Bay 1 & 2	Battery Shop	internal Shop	Composite Shop	Sheet Metal Shop	Bay 3	4	Stores	Room	Facility	Line Matc
21	Waste Car/GSE Tires	117	oZ								Document the transaction. Must maintain prove that item was not disposed of in the regular trash.				*								.0						· X	x
22	Lead Acid Batteries	118	Š							Batteries must be recycles (Cord Charge)	Document the transaction. Must maintain prove that item was not disposed of in the regular trash.												-				7		X	x
23	Waste Cartidges, Power Devices	119	Š							Explosive Bolt Squibs	Explode devise and then dispose of in regular trash					X						•							:	
24	Regular Trash	120	ON.	Steel	N/A	55	Open	Solid	Container Painted Bolid Green	Non-hazardous Waste				-		X		Hezerdous Weste		6	1	2	1	2	6	2	2	1 1	1 1	x
25	Kitty Litter	121	°Z	Steel	A/N	55	Open	Solid	Container Painled Sold Blue	This container is to provide a reusable way to dispense kitty litter.						x		"No Sending Dust"		2		-		2	2			1	2	x
26	Stripping Tank Soilds	122	Yes	Tank		2000		Solid	None	All the solids from cleaning the Stripping Tank											. , .				x					
27	Stripping Water	123	Yes	Tank		8000		Liquid	None	All the liquids from the Bay 3														_	x					

TRANT & LAMBERT 316-733-1361 Industrial Coatings Div. P.O. Box 2153 Wichita, KS 67201

DOT EMERGENCY CHEMTEL (800)255-3924 (24hrs) INFORMATION PHONE NO. 316-733-1361 (N-F 8 AM-5 PM CT) CORPORATE CONTACT 716-873-6000 (M-F 8 AM-5 PM CT)

HEALTH PLANCABILITY REACTIVITY ñ These ratings should be used only as part of fully implemented H.M.I.S. program.

#### DATA SHEET MATERIAL SAFETY

## SECTION

PRODUCT CLASS SOLVENT BLEND

DATE OF PREPARATION

1/22/96

TRADE NAME

JET GLO-ACRYGLO

BEST MEDIUM THINNER

TOLUENE  10  108-88-3 TLV-TVA  OSHA-PEL  OSHA-	3	NGREDIE	nt	١.	BY GT	CA	s N	ю.									E			(AB	LE	ve	L			## 3	RA 13	111	VP Hg
OSHA-PEL 100 375  OPH-STEL 1.7 150 156.7.1  ETHYL ACETATE 15 141-78-6 TLV-TUA 400 1400  OPH-STEL 2.0 UFL 7.1  ETHYL ALCOHOL 5 64-17-5 TLV-TUA 1000 1900  OSHA-PEL 3.0 UFL 19.0  CYCLOHEXANONE 10 108-94-1 JLV-TUA 25 100 SKIN  OSHA-PEL 3.0 UFL 19.0  CYCLOHEXANONE 10 108-94-1 JLV-TUA 25 100 SKIN  OSHA-PEL 3.0 UFL 19.0  CYCLOHEXANONE 10 108-94-1 JLV-TUA 25 100 SKIN  PROPYLENE GLYCOL 55 108-65-6 NONE ESTABLISHED  HETHYL ETHER ACETATE  DIPROPYLENE GLYCOL 5 BB917-22-0 NONE ESTABLISHED  LFL - LOVER FLANHABILITY LIMIT PERCENT  UFL SKIN ABBORT TOWN AND STORM OF THE FROM THE FORM OF THE FORM OF THE FROM THE FORM OF THE FORM OF THE FROM THE FORM OF	<i>K</i> -			,	1GT								PPM	MG	/cu	<b>.</b> ж.						:	KPP	CF	8	KIN	ı	20	DĒĞ.
CSHA-PEL 2.0 40	S TOLUER	E			10		108	-88-	_	SHA-	REL	.7	100	UF	3°	75 60	. 1								5 K	IN	X		25
CYCLOHEXANORE  10 108-94-1 JLV-TVA 25 100 SKIN OSHA-PEL 25 100 SKIN OSHA	S ETHYL	ACETATE			15		141	-78-	0	SHA-1	PEL	. 0		UF	140	ÖÖ	. 0												75
OSHA-PEL 25 100 SKIN  PROPYLENE GLYCOL 55 108-65-6 NONE ESTABLISHED  DIPROPYLENE GLYCOL 5 88917-22-0 NONE ESTABLISHED  HETHYL ETHER ACCTATE  LFL - LOWER FLANMABILITY LIMIT PERCENT UFL = UPPER FLANMABILITY LIMIT PERCENT SKIN = SKIN ABSOPTION MUST BE CONSIDERED AS A ROUTE OF EXPOSURE C-CEILING= ALLOW EXPOSURE LEVEL SHOULD NOT BE EXCEEDED FOR ANY TIME PERIOD  MFR = MANUFACTURER RECOMMENDED EXPOSURE LIMIT X-SARA 313 = CHEMICAL IS SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313  OF TITLE III OF S.A.R.A. 40 CFR PART 372  EFFECTS OF SHORT TERM OVEREXPOSURE SWAILDHING Con cause gestointsetinal irritation, nausea, and vomiting. Aspiration of Section 313  EFFECTS OF SHORT TERM OVEREXPOSURE INTELLIBRATION  May cause nose or throat irritation. High concentrations may cause acute central nervous system depression characterized by headaches, dizzinexs, nauses and confusion.  EYE  May cause acore eye irritation.	ETHYL	ALCOHOL			5		64	-17-	Ö	SHA-	EL	1		UF	190	ÕÕ	. 0												4.6
DIPROPYLENE GLYCOL  METHYL ETHER ACETATE  DIPROPYLENE GLYCOL  METHYL ETHER ACETATE  Lfl - LOWER FLANHABILITY LIMIT PERCENT  UFL = UPPER FLANHABILITY LIMIT PERCENT  SKIN = SKIN ABSORPTION MUST BE CONSIDERED AS A ROUTE OF EXPOSURE  C-CEILING = ALLOW. EXPOSURE LEVEL SHOULD NOT BE EXCEEDED FOR ANY TIME PERIOD  MFR = MANUFACTURER RECOMMENDED EXPOSURE LIMIT  X-SARA 313 = CHEMICAL IS SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313  OF TITLE III OF S.A.R.A. 40 CFR PART 372  EFFECTS OF SHORT TERM OVEREXPOSURE  SWALLOWING  Con cause gastrointastinal irritation, nauses, and vomiting. Aspiration of the content	CYCLOH	EXANONE			10		108	-94-	0	SHA-	EL	. 1	25 25												\$ K	IN IN			?
LFL - LOWER FLAMMABILITY LIMIT PERCENT  UFL = UPPER FLAMMABILITY LIMIT PERCENT  SKIN = SKIN ABBORPTION MUST BE CONSIDERED AS A ROUTE OF EXPOSURE  C-CEILING= ALLOW. EXPOSURE LEVEL SHOULD NOT BE EXCEEDED FOR ANY TIME PERIOD  HFR = MANUFACTURER RECOMMENDED EXPOSURE LIMIT  X-SARA 313 = CHENICAL IS SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313  OF TITLE III OF S.A.R.A. 40 CFR PART 372  EFFECTS OF SHORT TERM OVEREXPOSURE  SWALLOWING  Con cause gastrointestinal irritation, nausea, and vomiting. Aspiration of material into lung may cause chemical pneumonitis which can be fatal.  INMALATION  May cause note or throat irritation. High consentrations may cause acute central nervous system depression characterized by headaches, dizziness, nauses and confusion.  EYE  May cause severe cyc irritation.	PROPYL METHYL	ENE GLYC	OL CETATE		55		108	-65-	6			NONE	E\$	TABL	ISH	EO													3
UFL = UPPER PLANMABILITY LINIT PERCENT  SKIN = SKIN ABBORPTION MUST BE CONSIDERED AS A ROUTE OF EXPOSURE C-CEILING = ALLOW. EXPOSURE LEVEL SHOULD NOT BE EXCEEDED FOR ANY TIME PERIOD  MFR = MANUFACTURER RECOMMENDED EXPOSURE LIMIT  X-SARA 313 = CHENICAL IS SUBJECT TO REPORTING REQUIREMENTS OF SECTION 313  OF TITLE III OF S.A.R.A. 40 CFR PART 372  EFFECTS OF SHORT TERM OVEREXPOSURE  SWALLOWING  Can cause gastrointestinal irritation, nausea, and vomiting. Aspiration of material into lung may cause chemical pneumonitis which can be fatal.  INMATATION  May cause nose or throat irritation. High consentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausea and confusion.  EYE  May cause asvere eye irritation.					5	88	917	-22-	0			NONE	E 51	TABL	ISH	ED												÷	
SECTION 313  OF TITLE III OF S.A.R.A. 40 CFR PART 372  SECTION 313  OF TITLE III OF S.A.R.A. 40 CFR PART 372  EFFECTS OF SHORT TERM OVEREXPOSURE  SWALLOWING  Con cause gastrointestinal irritation, nausea, and vomiting. Aspiration of material into lung may cause chemical pneumonitis which can be fatal.  INMALATION  Hay cause nose or throat irritation. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausem and confusion.  EYE  May cause severe eye irritation.	UFL SKIN C-CE MFR	= ŠKI ILING= = MANU	ER F ER ALL FACT	LANI LANI SOR OV.	HABIXR	ILI ON S PCO	TYVURM	STL	HHEVE	ELO	NSI Sho	DE	RED	OT	PE										LIH	E	PER	100	
EFFECTS OF SHORT TERM OVEREXPOSURE SWALLOWING  Can cause gastrointestinal irritation, nausea, and vomiting. Aspiration of material into lung may cause chemical pneumonitis which can be fatal.  INHALATION  Hay cause nose or throat irritation. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nauses and confusion.  EYE  May cause severe eye irritation.	X - 5 A	RA 313	∵ a C		I ČĀ	POS L I R.A	U R							TI	4 G	RE	Q U	IR	Ę H	EN	T S	٥	FS	E	1 T :	0 H	3 1	3	
SWALLOWING  Can cause gastrointestinal irritation, nauses, and vomiting. Aspiration of material into lung may cause chemical pneumonitis which can be fatal.  INMALATION  Hay cause nose or throat irritation. High concentrations may cause acute central nervous system depression characterized by headaches, dizziness, nauses and confusion.  EYE  Hay cause severe cyc irritation.							156	TI.		127		H	î.	1	1212 213	on			Ó):										
May cause nose or throat irritation. High consentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausem and confusion.  EYE  May cause severe eye irritation.																													
Nay cause nose or throat irritation. High consentrations may cause acute central nervous system depression characterized by headaches, dizziness, nausem and confusion.  EYE  May cause severe eye irritation.	C INHA	ateria LATION	i e g	# # t   t o	roi Lun	nte g m	e t e y	1 n =	L U S	irr e c	ita hen	i c	'n,	p n d		6 n	ίt	10	ďv	μş	c h	t 1 :	ng.	b 6	o p	i r	ati •l.	oπ	o f
May cause severe eye irritation.	K C	ay cou	se n	0 <b>8 9</b> V 0 U :	10	th yst	F 0	a t	1 6	rit	a z i	0 0	. н	1 4 1	٠ د	O n	c è	n t	ГВ	t i	0 n :			, ,	. a u	8 0	8 5	ute	
SKIN				<b>o V e</b> l	r ė	c y c	i	r r 1	t a	tio	n.																	,	

May cause severe akin irritation. EFFECTS OF REPEATED OVEREXPOSURE

Repeated overexposure to toluend may cause liver damage.
Repeated overexposure to toluend may cause liver damage.
Reports have associated prolonged and repeated occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

and the second of the second o

hareful or fatal.

SIGNIFICANT LABORATORY DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH.

Toluene has been found to cause kidney, lung and splean damage in tabora-

If swallowed do not induce vomiting. Call poison control center, hospital emergency room or physician immediately. Remove to fresh sir immediately. If breathing has stopped, give artifiCOMPARING STATES OF THE PROPERTY OF THE STATES OF THE STAT

PAGE 2. 200

```
INHALATION cial respiration.
                                                                                                                                                Get medical attention immediately.
                                                                        Keep warm and quiet.
                                                                                                                                                                                                        lida occasional-
                           with large amounts Continue for at leas
Immediately flush the conteminated clothing
                                                                               contaminated area with large amounts of water. Remove as water is applied. Consult a physician.
                                                 that might be required for overexposure should be the control of symptoms and the clinical conditions.
            Any treatment directed at t
                                               SECRECISES ELEGISES CAUSOSIVA
  BOILING RANGE
                                                                                                                                                                                      209 DEG.C.)
                                                                                            75 DEG.C.) TO
                                                                                                                                            408 DEG.F.(
                                                                                                   * VOLATILE BY VOLUME 100
  VAPOR DENSITY
                                            Heavier than air.
  EVAPORATION RATE Slower than diethyl ether.
                                                                                                  VOC 7.85 lb/gal less water & NERS*
                                                                                                                                                                                      942 g/l less water CALCULATED
  MEIGHT LB. GAL. 7.8
SPECIFIC GRAVITY 0.9
                                                                                                  VOC
                                                                                                                         . Olf/qal solids
                                                                                                                                                                                            0 g/l solids
                                                                                                                                                                                                                              CALCULATED
  All Physical data determined at 68 DEG. F. (20 DEG. C.) 760 mm Hg * Negligibly Photochemically Reactive Materials VOC values reported here are verified by ASTM method D-3960
         SECTION TO SET THE AND EXPLOSION TO THE
IFPA PLANCABILITY CLASSIFICATION
                                                                                                               FLANHABLE LIQUID - CLASS IB
  LASHPOINT
TINGUISHING MEDIA
                                                        24 DEG.F.
                                                                                                                                                            -4 DEG.C,) CALCULATED
 Use HFPA Class B fire extinguishers (carbon dioxide, all purposa dry chamical or alcohol fosa) designed to extinguish flammable liquid fires. Polymer fosa is preferred for large fires, NUSUAL FIRE AND EXPLOSION HAZARDS
           During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.
                                    attention
FLAMMARI
  DARNING! FLAMMABLE.

*ECIAL FIRE FIGHTING PROCEDURES

User may be ineffective, but may be used to cool exposed containers to prevent pressure build-up and possible auto-ignition or explosion when exposed to extreme heat. If water is used, fog nozzles are preferable.
             SKOTI OF VET - REPORT OF VET
  CABILITY
    CONDITIONS TO AVOID
 Avoid excessive hear (>115 F (46 C) and source's of ignition.

MCOMPATABILITY (MATERIALS TO AVOID)

Strong acids or skaline saterials.

Acetyl chloride.

ZARDOUS DECOMPOSITION PRODUCTS

Eurning, including when heated by welding or cutting, will produce sacke, carbon sonoxide and carbon dioxide.

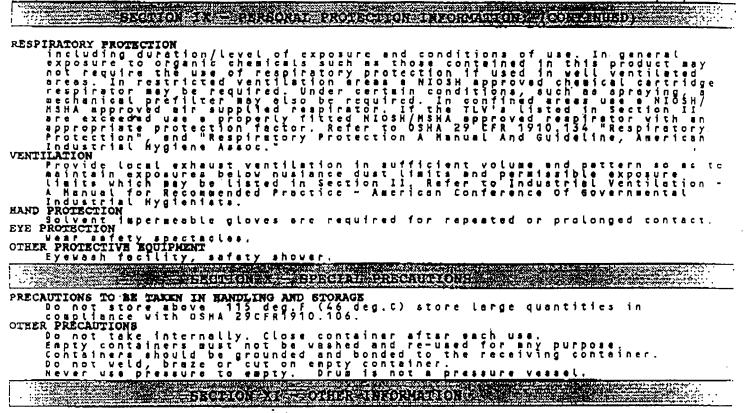
AZARDOUS POLYMERICATION

Will not occur
    CONDITIONS TO AVOID
           None known
        BECTON AS ASSESSIVE ROMMENTAL RAPORTACION (F
  TEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED
           A 10 DB TAREN IF MATERIAL IN RELEASED OR SPILLED

Keep spectators away. Eliminate all ignition sources (flames, hot surfaces, and sources of electrical, static or frictional sparks). Dike and contain spill with inert material (e.g. sand, earth). Transfer liquids to covered metal containers for recovery or disposal, or remove with inert absorbent. Use only non-sparking tools. Flace absorbent diking materials in covered metal containers for disposal. Frevent contamination of severs, strams, and groundwater with spilled material or used absorbent.
ASTE DISPOSAL
 Dispose in accordance with federal, state CRA CLASSIFICATION
 This product, if discarded based on its ignitebility of deg. C) or less.
                                                                                          d directly, would be classified a characteristic, i.e. has a flash. The proper RCRA classification
                                                                                                                                                                                                    hazardous vaste
point of 140
would be 0001.
           None known
        and and the contraction of the c
                                                     SECTION TRANSPRIONAL PROTECTION INFORMALION FRANCE
ESPIRATORY PROTECTION
           Proper selection of respiratory protection depends upon many factors
```

POWNTOWN AIRPARK

PAGE 1/22/96



THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. WHILE THE INFORMATION IS BELIEVED TO BE RELIABLE, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF, SINCE THE USE OF THIS INFORMATION AND THE CONDITIONS AND USE OF THIS PRODUCT ARE CONTROLLED BY THE USER, IT IS THE USER'S OBLIGATION TO DETERMINE THE COMPITIONS OF SAFE USE OF THE PRODUCT. The Corporate Safety and Environmental Affairs Department is responsible for the preparation of this Material Safety Data Sheet.

DOWNTOWN AIRPARK 1701 SOUTH WESTERN OKLAHOMA CITY

OK 73109

SAMPLING INFORMATION

16b. Generator's Agent Supervising Sampling: \_

Ιn τ. Chemical Waste Management,

Profile | VIC AC3174

Sample Tracking Number: 4525760

\_ 17. (I) No sample required (See instructions.)

Date Printed 03/19/99 GENERATOR'S **\* 1** 5 7 E PROFILE SHEET (\_) Check here if this is a Recertification Attachment G LOCATION OF ORIGINAL Waste Management of Chio, Inc. GENERAL INFORMATION 1. Generator Name: WEST VIRGINIA AIR CENTER Generator USEPA 10: WVD988776852 Billing Address: BARTAN ESVIROSNESTAL Generator Address: BENEDUM AIRPORT (\_) Same PO BOX 198 BR IDGEPORT WV 26330 3. Technical Contact/Phone: BILL PULLING 304/8**42-630**0 BRANDANORE PA 19316 Billing Contact/Phone: STUART POLLOCK Alternațe 610/942-9021 Contact/Phone: PROPERTIES AND COMPOSITION 5. Process Generating Waste: Stripper Water 6. Waste Hame: Waste Water 7A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes (X) No (\_)
B. Identify ALL USEPA listed and characteristic waste code numbers (\overline{D}, F, K, P, U): \overline{D002 \overline{D004 \overline{D007 \overline{D008 \overline{D08 \overline State Waste Codes: Same as USEPA Codes 8. Physical State ( 70F: A. Solid( ) Liquid( ) Both( ) Gas( ) B. Single Layer ( ) Multilayer ( ) C. Pree liq. range 98 to 100% 9A. pH: Range 2.1 to 14.0 or Not applicable (\_) B. Strong Odor (\_);describe \_ 10.Liquid Flash Point: < 73F (\_) 73-99F (\_) 100-139F (\_) 140-199F (\_) >= 200F (X) H.A. (\_) Closed Cup (X) Open Cup (\_) 11. CHEMICAL COMPOSITION: List ALL constituents (incl. halogenated organics) present in any concentration and forward analysis
Constituents

Range
Unit Description Constituents 100 \$ WATER **99** to FORMIC ACID 25 to CHRONIUN 150 PPM 5 to LEAD 15 PPK 1 to CADMIUM 6 PPM TOTAL COMPOSITION (MUST EQUAL OR EXCRED 100%): 102,000000 12. OTHER: PCBs if yes, concentration If waste subject to the land ban & meets treatment standards, check here: \_ & supply analytical results where applicable. SHIPPING IMPORMATION 14. PACKAGING: Bulk Solid (\_) Bulk Liquid (X) Drum (\_) Type/Size: TANK 80000 Units: GALLOUS \_\_\_ Shipping Frequency: OUARTERLY

GEMERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix I or by using an equivalent mathod. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification.

16a. Sample source (drum, lagoon, pond, tank, wat, etc.): \_ Sampler's Hame/Company: \_

Signature on original profile AC3174 ALICE YRAREGO SAFETY SERV. Signature

Date Printed 03/19/99

18. This is a Monwastewater.

Profile 1

- 19. If this waste is subject to any California list restrictions enter the letter from below (either A, B.1 or B.2) next to each restriction that is applicable: \_\_ HOCs, \_\_ PCBs, \_\_ Acid, A\_ Hetals, \_\_ Cyanides
- Identify ALL Characteristic and Listed USEPA hazardous waste numbers that apply (as defined by 40 CFR 261). For each waste number, identify the subcategory (as applicable, check none, or write in the description from 40 CFR 268.41, 268.42, and 268.43).

	A. US EPA HANARDOUS	B. SUBCATEGORY Enter the subcategory descripti	ion.		C. APP	LICABLE TREATMENT STAPPARDS	D. HOW MUST THE WASTE BE
REP	WASTE CODE(S)	Enter the subcategory descript: If not applicable, simply check none		PERFOR BAS Check as	MARCE- RD: applicable	SPECIFIED TECHNOLOGY: If applicable enter the 10 CFR 268.42 table 1 treatment code(s) 768.47	MANAGED7 Enter letter from below
<u>;                                    </u>		DESCRIPTION	KOT.	268.41(a)	[268.43(a)	268.42	i
1	D002	CWA or Class I managed corrosive char. wastes				DEACT	λ
2	D006		I	1			A
3	D007		1				λ
1	D008		I	1			λ
5							
6							
							<u> </u>
_8							-
9							<del>                                     </del>
10							
-							
							}

Management under the land disposal restrictions:
A. RESTRICTED WASTE REQUIRES TREATMENT

- B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
- B.2 RESTRICTED WASTES FOR WHICH THE TREATMENT STANDARD IS EXPRESSED AS A SPECIFIED TECHNOLOGY (AND THE WASTE HAS BEEN TREATED BY THAT TECHNOLOGY)
- B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCIDENTATION ORGANICS
- C. RESTRICTED WASTE SUBJECT TO A VARIANCE
- D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
- E. HOT CURRENTLY SUBJECT TO LAND DISPOSAL RESTRICTIONS

22.	phecitic etanit	kyude: 1.000 to 1.700	<u>l</u>			
23.	Indicate the ran	nge of each:	Vaits			
	Cyanides: _ No	oge to	<b>Ty</b>	pe (free, total, amem	able, etc.)	
	Cyanides: _ No	one to	<u></u>	pe (free, total, amen	able, etc.)	
	Sulfides: _ No	one to	Туј	pe		
	Optional Phenolics: _ No	ne to				
24.	Identify the was	te color	, DOT :	hysical state Liquid		
		earance SIEGLE LAYER L				

Date Printed <u>03/19/99</u>

Profile 6-3

	Top produce
: 25. COMPLETE ONLY FOR WASTES INTENDED FOR FUELS OR INCINERATION	26. RECLARATION, FURLS or INCLUMENTION PARAMETERS (Provide if information is available)
TOTAL	RANGE
Beryllium as Beppm	A. Beat Value (Btu/lb):
Potassium as Kppm	B. Water:
Sodium as Nappm	C. Viscosity (cps):P 100 F _ 150 F
Brownine as Br	D. Ash: 1
Chlorine as Cl	E. Settleable solids: %
Pluorine as P	F. Vapor Pressure & STP (mm/Hg):
Sulfur as S	G. Is this waste a pumpable liquid? Yes _ No _
	H. Can this waste be heated to improve flow? Yes _ No _
	I. Is this waste soluble in water? Yes _ No _
	J. Particle size: Will the solid portion of this waste pass through a 1/8 inch screen? Yes _ No _
and Additional Description if required: RO (ROSS, DOO).  C. DOT Regulations: North America Bazard Class: 9 History  D. CERCLA Reportable Quantity (RQ) and units (Lb, Kg): 10  E. Non-Bulk code 203 Bulk code 241  F. Special Provisions	C.Hazardous Mat'l I.D. <u>MA3082</u> Packing Group: <u>III</u> Lb
_ Material Safety Data Sheets Attached 29. OTHER INFORMATION	

#### 30. CHEMICAL WASTE MANAGEMENT CERTIFICATION

Chemical Waste Management, Inc. has all the necessary permits and licenses for the waste that has been characterized and identified by this approved profile.

Date Printed 03/19/99

Profile 16-4

31. OTHER HAMARDOUS CONSTITUENTS Indicate if the waste contains any of the following.

METALS	Check o	TCLP Information of the control of t	ch cons	1	TCLP Data		Use units	TCA or : ppm, or ber	TOTAL mg/l, mg/k cent	g
	Less Than	Regulated	Equal or More	Waste No.	TCLP Actual	-	liformia Lis Begulated	Equal or More		
Arsenic as As	X	5.0 mg/l		D004			500 mg/l			
Barium as Ba	I	100.0 mg/l		D005						
Cadaium as Cd		1.0 mg/l	1	D006		1	100 mg/l		4.6	mg/l
Chronium tot Cr		5.0 mg/l		DQ 07			<u> </u>		150	mg/1
Lead as Pb		5.0 mg/l	X	D008		1	500 mg/l		9.1	mg/1
Mercury as Eq	1	.2 mg/l		D009			20 mg/l			
Selenium as Se	I_	1.0 mg/1		D010			100 mg/l			
Silver as Aq	1	5.0 mg/l		D011						
Nickel as Ni						X	134 mg/l		1.3	mg/l
Thallium as Tl							130 mg/l			
Chronium Ber							500 mg/l			
Antimony										
Beryllium					-					
Соррег		_								
Vanadium										
linc										
Iron									80	mg/1

Profile 1 G-5

### Date Printed 03/19/99

32. OTHER HAMANDOUS CONSTITUENTS Indicate if the waste comtains any of the following.

ORGANICS	Check o	TCLP Informa	tion:	mtituent	TCLP Data	TCA or TOTAL Use units: ppm, mg/l or t
	Less Than		or Kore	Waste No.	TCLP Analytical Test Results Use units: ppm or mg/l	_
Benzene	1	0.5 mg/l		D018		
Carbon Tetrachloride	1	0.5 mg/l		D019		
Chlordane	1	0.03 mg/l		D020		
Chlorobenzene	1	100.0 mg/l		D021		
Chloroform	I	6.0 mg/l		D022		
m-Cresol	1	200 mg/l		D024		
o-Cresol	I	200.0 mg/l		D023		
p-Cresol	1	200.0 mg/l		D025		
Cresol	1	200.0 mg/l		D026		
2,4-D	1	10.0 mg/l		D016		
1,4 Dichlorobenzege	1	7.5 mg/l		D027		
1,2-Dichloroethane	1	0.5 mg/l		D028		
1,1-Dichloroethylene	X	0.7 mg/l		_D029	4	
2,4-Dimitrotolueme	I	0.13 mg/l		D030		
Endrin	1	.02 mg/l		D012		
Heptachlor, & Hydroxide	I	0.008 mg/l		D031		
Bezachloro-1,3 Butadiene		0.5 mg/l		D033		•
He <b>zachl</b> orobenzene	1	0.13 mg/l		D032		
Bexachloroethane	Y	3.0 mg/l		D034		
Lindane	X	0.4 mg/l		D013		
Hethoxychlor	1	10.0 mg/l		0014		<u> </u>
Methyl Ethyl Metone		200.0 mg/l		D035	· ·	
Mitrobenzene	1	2.0 mg/l		D036		
Pentachlorophenol	1	100.0 mg/l		DQ37		
Pyridine	1	5.0 mg/l		D038		
Tetrachloroethylene		0.7 mg/l		D039		
Toxaphene	I	0.5 mg/l		D015		
2,4,5-TP Silver	X	1.0 mg/l		D017		
Trichloroethylene	X	0.5 mg/l		D010		
2.4.5-Trichlorophenol	1	400.0 mg/l		D041		
2.4.6-Trichlorophenol	1	2.0 mg/l		D042		
Vinyl Chloride		0.2 mg/l		0013		
				i		

DIT 853 625/ :317 456 5065

P.IL

Attachment H

#### CERTIFICATE OF ANALYSIS

Service Location	Received	Project	10 ط <b>م</b> ا
HERITAGE ENVIRONMENTAL SERVICES, LLC	12-AUG-99	13 .	H136858
COMMERCIAL LABORATORY OPERATIONS	Complete	PO Nu	mber
7901 W. MORRIS ST.	07-0CT-99	480118437*	
INDIANAPOLIS, IN 46231	Printed	Sampl	ed
(317)243-8305	18-0CT-99		

Report To

INTERNAL COORDINATORS HERITAGE ENVIRONMENTAL SERVICES LLC 7901 WEST MORRIS STREET INDIANAPOLIS, IN 46231-3301

WINDE HAMRICK HERITAGE ENVIRONMENTAL SERVICES LLC 7901 WEST MORRIS STREET INDIANAPOLIS, IN 46231

Bill To

Sample Description

10-19-99; 1:22AM;Etzel

CLIENT ID: . GENERATOR: BOMBARDIER

DESCRIPTION: . Stripper waste Waster

SALESMAN: .

GENERATOR LOCATION: .

Parameter	Result	Det. Limit	Percent
SOL IDS	0.11	0.001	
TOTAL PETROLEUM HYDROCARBONS (GRAVI) Analyst: 1: KADEK Analysis Date:		Tgst: 6502.8.	0 .
Parameter	Result	Det. Limit	Units
PETROLEUM HYDROCARBONS	120	100	mg/kg
PH (AQUEOUS) SW846-9040B Analyst: R. LAZONSKI Analysis Date	12-AU5-99	Test: 6887,5,1	0
Parameter	Result	Det. Limit	Units
PH	3.02	0.10	Std. Uni
HLORIDE (ARGENTOMETRIC) SM 407A-161 Analyst: A: LAZONSKI Analysis Date:	H LZ-AUG-99	Test: 5102.4.(	A
Parameter	Result	Det. Limit	Units
CHLORIDE	BDL	100	mg/kg
HEMICAL DXYGER DEMAND (COLORIMETRIC Analysis D KLINGEL Analysis Date:		Test : 630]_].(	y
Parameter HEMICAL OXYGEN DEMAND	Result	Det. Limit	Units
	4400	1000	mg/kg

10-10-99: 1:224M(%t2c)

HERITAGE ENVIRONMENTAL SERVICES, LLC		Sample ID:	· · · · · · ·
Farameter INITIAL WEIGHT OR VOLUME	Result 10	Det. Limit	Grams
FINAL VOLUME	250		nL .
			S
CYANTDE, TOTAL (AUTOMATED) SN846-9012 Analysis D. Allin Analysis Date: [	Z	ALV7FD *** Toet *** GID	1 4 G - 180
Prep: CYANIDE DISTILLATION SW846-90108 FIG. 4:0		Control of the control of the control of the control of	
Parameter	Result	Det. Limit	Units
CYANIDE	1.7	0.25	mg/kg
CYANIDE, WEAK ACID DISSOCIABLE HTC 1	The second se		
Analyst: X SMITH Analysis Date: 0	7-0CT-99	Test: G118.2.0	1NDL
Parameter	Result	Det. Limit	Units
CYANIDE, WEAK ACID DISSOCIABLE	0.278	<u> </u>	mg/L
CYANIDE AMENABLE DISTILLATION SW846-	o o o	19:00 10:00 No.301 2:44.1	
Analyst P. HANCIN Analysis Date: 1	!-AUG-99 16:00 Instrument: PREP	Test: Pli	1.4.0
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	10		Grams
FINAL VOLUME	250		nl.
CYANIDE AMENABLE TO CHLORINATION (AL	TOWATER 1 - EMPAG - DO12	and the second second second	
Amalyst J. ALLEN Analysis Date: 16	-AUG-99 12:45 Instrument: AUTO-AW	ALYZER Test: 611	1.4.0 (NO)
Prep: CYANGOE AMENABLE DISTILLATION SW846-8010A PII	1.4.0.		
Parameter	Result	Det. Limit	Units
CYANIDE, AMENABLE	BDL	0.25	mg/kg
PHENOLICS DISTILLATION SW846-9065			9.00
Analyst: J KLINGEL Analysis Date: 12	-AUG-99 That tument PREP	Test. P405.7.1	1
Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1 1	J	Grams
		The second control of the second	
INAL VOLUME	ioo		mL
	100		
FINAL VOLUME  PHENOLICS 4AAP (AUTOMATED) SW846-9066  Analyst: J. Allen Analysis Date: 16	100	LYZER Jest:: 040!	mL e.s
PHENDLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. Allen Analysis Oste: 16	100 AVG-99 07:45 (Instrument: AUTO-ARA	LYZER Just: 0401	mL e.s
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Obte: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405.7.0: Parameter	AUG-99 07:45 (Instrument): AUTO-ARA	Det. Limit	mL 27.0 INDI
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Obte: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405.7.0: Parameter	100 100 AVG-99 07:45; Instrument: AUTO-ARA		mL 7.0 1ND1 Units
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Obte: 16 Prep: PMENOLICS DISTILLATION SW846-9085 P405.7.0  Parameter PHENOLICS	AUG-99 07:45 (Instrument): AUTO-ARF	Det. Limit	mL 7.0 Å01 Units mg/kg
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Obte: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405 7.0  Parameter PHENOLICS	AUG-99 07:45 (Instrument): AUTO-ARF	Det. Limit	mL 7.0 Å01 Units mg/kg
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Obte: 16 Prep: PMENOLICS DISTILLATION SW846-9085 P405.7.0  Parameter PHENOLICS	AUG-99 07:45 (Instrument): AUTO-ARF	Det. Limit	mL 7.0 Å01 Units mg/kg
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Date: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405 7.0  Parameter PHENOLICS FAA OR ICP ACID DIGESTION OF S/S/S SA Analyst: A. LAZOWSKI Analysts Date: 12  INITIAL WEIGHT OR VOLUME	AUG-99 07:45 Instrument: AUTO-ARI  3.9  MPLES SW846-3050A  AUG-99 Instrument: PREP  Result 1	Det. Limit 1.0	mL  7.0 [ND]  Units mg/kg  Units Grams
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Date: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405 7.0  Parameter PHENOLICS FAA OR ICP ACID DIGESTION OF S/S/S SA Analyst: A. LAZOWSKI Analysts Date: 12  Parameter INITIAL WEIGHT OR VOLUME	100 Aug. 99 07:45 Instrument: Auto-AM Result 3.9 MPLES SW846-3050A AUG-99 Instrument: PREP	Det. Limit 1.0	mL 7.0 [ND] Units mg/kg Units
PHENOLICS 4AAP (AUTOMATED) SW846-9066 AMAIyst: J. ALLEN AMAIYSTS: Date: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405: 7.0 Parameter PHENOLICS  FAA OR ICP ACID DIGESTION OF S/S/S SA AMAIYST: A. LAZOWSKI AMAIYSTS Date: 12 PARameter INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	AUG-99 07:45 Instrument: AUTO-ARI  3.9  MPLES SW846-3050A  AUG-99 Instrument: PREP  Result 1	Det. Limit 1.0	mL  7.0 [ND]  Units mg/kg  Units Grams
PHENOLICS 4AAP (AUTOMATED) SW846-9066 AMAIYST: J. ALLEN AMAIYSTS Date: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405 7.0  PARAMETER PHENOLICS  FAA OR ICP ACID DIGESTION OF S/S/S SA AMAIYST: A. LAZOWSKY AMAIYSTS Date: 12  PARAMETER INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME  CHRONIUM ICP SW846-6010B	AUG-99 07:45 Instrument: AUTO-AMI  Result  3.9  MPLES SW846-3050A  -AUG-99 Instrument: PREP  Result  1 100	Det. Limit 1.0 Text: P129.7.0 Det. Limit	mL  7.0 (ND)  Units mg/kg  Units Grams mL
PHENOLICS 4AAP (AUTOMATED) SW846-9066 Analyst: J. ALLEN Analysis Date: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405 7.0  PHENOLICS  FAA OR ICP ACID DIGESTION OF S/S/S SA Analyst: A. LAZOWSKT Analysts Date: 12  PARAMETER  INITIAL WEIGHT OR VOLUME  INAL WEIGHT OR VOLUME  THRONIUM ICP SW846-60108  Analysts: J. KRAHER Analysts Date: 13	AUG-99 07:45 Instrument: AUTO-AMI  Result  3.9  MPLES SW846-3050A  AUG-99 Instrument: PREP:  Result  1  100	Det. Limit 1.0	mL  7.0 (ND)  Units mg/kg  Units Grams mL
PHENOLICS 4AAP (AUTOMATED) SW846-9066 AMAIyst: J. ALLEN AMAIYSTE Dete: 16 Prep: PHENOLICS DISTILLATION SW846-9085 P405 7.0  PARAMETER PHENOLICS  FAA OR ICP ACID DIGESTION OF S/S/S SA AMAIYST: A. LAZOWSKI AMAIYSTE DETE: 12  PARAMETER INITIAL WEIGHT OR VOLUME FINAL WEIGHT OR VOLUME	AUG-99 07:45 Instrument: AUTO-AMI  Result  3.9  MPLES SW846-3050A  AUG-99 Instrument: PREP:  Result  1  100	Det. Limit 1.0 Text: P129.7.0 Det. Limit	mL  7.0 (ND)  Units mg/kg  Units Grams mL

10-19-99; 1:22AM; Etze:

:31/ 468 5065

HERITAGE ENVIRONMENTAL SERVICES, LLC		Sample ID:	H136858 .
HEXAVALENT CHRONTUM SW846-71964  Analysi: J: KLINGEL		Test: M110.5.0	
Parameter	Result	Det. Limit .	Units
HEXAVALENT CHROMIUM	10	1.0	mg/kg
CRVI DUP=7.5 PPM			
			<u> </u>

Parameter	Result	Det. Limit Units
INITIAL CONCENTRATION	2.0	0.2 mg/L
VICKEL TREATABILITY	2.2	The state of the s
ICKEL SPIKE TREATABILITY	2.6	mg/L

Parameter		Result	Det: Limit	Units
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HYSICAL STATE	**		***************************************	
UMBER OF LAYERS	1 1			
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Yellow			<u> </u>	

Sample Comments ANALYSES PERFORMED COMPLY WITH THE HERITAGE WASTE ANALYSIS QUALITY ASSURANCE PLAN.

See Note for Parameter See Note for Parameter

See Note for Parameter

BDL Below Detection Limit

Sample was received outside of holding time. Sample was received on ice.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.

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